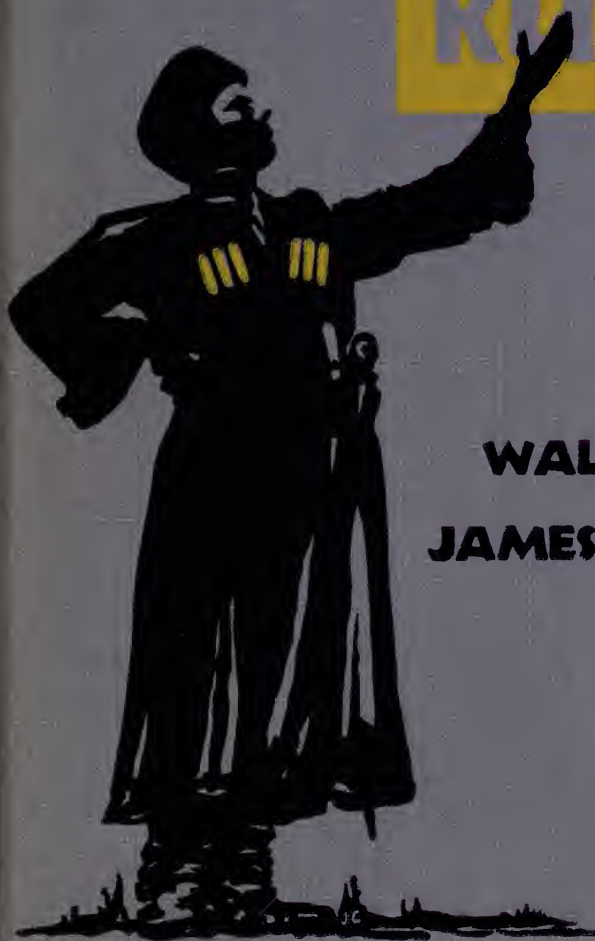


**OUR GOOD
NEIGHBORS
IN
SOVIET
RUSSIA**



**WALLACE WEST
AND
JAMES P. MITCHELL**

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SOVIET RUSSIA



Our Good Neighbors
IN
SOVIET RUSSIA

WALLACE WEST

Author of "Our Good Neighbors in Latin America"

JAMES P. MITCHELL



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FOREWORD

IN THE PAGES of this book the authors with the cooperation of the American Russian Institute and other authorities on Soviet Russia have painted, in broad sweeping strokes, the picture of Russia, past and present, so that the reader may have a better understanding of the Soviets of today and tomorrow.

It is generally admitted that without the aid of the gallant Red Army and the millions of Russians who gave their lives in turning back the common enemy, the United Nations might have been overwhelmed by the Nazi German hordes during World War II. Whether we agree or disagree with the Soviet type of government and their way of life, we must admit the power and importance of the U.S.S.R. To establish a lasting

peace upon this globe, it is necessary for all the peoples and nations first to establish friendly relations with each other. And, as everyone knows, you cannot have solid friendship until you have solid understanding. That is the purpose of this book . . . to develop among our citizens of tomorrow a better and more thorough understanding of our good neighbors in Soviet Russia.

In presenting this, on the whole, rather favorable and friendly account, there is no desire to ignore the views of those who are critical or hostile to the U.S.S.R. Such views should be recognized and evaluated with the best abilities Americans have.

One further and very basic point must be made. There is no desire to present the Soviet Union as a place we should imitate. The overwhelming majority of Americans prefer to live under the institutions our forefathers established. They want to make changes when the necessity is clearly shown, but to make them within the framework of a democratic capitalistic society.

They also want to live in peace and friendship with our neighbors. This they cannot do unless they understand the other nations and peoples of the world. Especially necessary is our understanding of the U.S.S.R., the largest of our allies, who is emerging from the horrors of war as one of the strongest powers in the world. Americans should study our good neighbor, Soviet Russia, not in order to copy her ways, but so we may understand them and deal intelligently with them.

The Honorable Joseph E. Davies, former United States Ambassador to the Soviet Union, wrote:

Many fine things are being done under the present Soviet regime. Many noble enterprises have been projected which arouse sympathy and inspire intense admiration. No degree of altruism, humanitarian effort, or high and noble purpose, and no amount of material improvement in providing for things which elevate the standard of living of the proletariat, can ever compensate for the denial of freedom, of liberty, and the rights of the individual even as against the king.

Whether this regime continues in power or falls, in my opinion, this Russian situation will continue to grow in international importance—both politically and economically. Enormous and even astounding strides have been made in industrial and scientific development and achievement within the past eight years. And the tiger has tasted blood. Nothing (not even revolution or change of government) can stop the continued exploitation and development of this country's enormous resources and wealth. The ambitions of the country youth have been fired. Educational facilities have been afforded. Education, scientific and otherwise, is being extensively projected and made universal. Caste or class barriers to individual advancement have been broken down. The inevitable strength of this relatively young nation and a people, fresh from the soil, will inevitably project and continue this development. This country's present position, economically and industrially, appears

to me to be now at a point of development where the United States was about sixty years ago.

The above was written in Moscow by Ambassador Davies and is contained in a confidential report to the United States Secretary of State, dated April 1, 1938.

Six years later, on July 13, 1944, Eric A. Johnston, President of the Chamber of Commerce of the United States, in speaking at a press conference upon his return from the U.S.S.R. where he had gone as a guest of the Soviet Foreign Trade Commissar had this to say:

I saw certain major changes appearing in Russia. Let me enumerate, if I may, six of them:

First, there is a rediscovery and glorification of Russia's past. That is evidenced by the revival of national heroes, such as Kutuzov, Suvorov and others; then the revival of historical movie plays, such as "Peter, the Great," and "Ivan, the Terrible." There is the renewal of the teaching of Russian history in schools. I mean the old Tsarist history, and there are many other evidences of a revival and a rediscovery and reglorification of Russia's past.

Second, there is a growing, intense nationalism. This is evidenced in the belief in Russian superiority and her inexhaustible resources and the ability of the Russians to do anything they desire if they only put their minds to it, and the ability of the Russian people, in their opinion, to withstand hardship or any punishment if it will bring them closer to the objective they have in mind.



The Honorable Joseph E. Davies,
former United States Ambassador to the Soviet Union.

Third, a feeling of a definite need for a long period of peace. Much of Russian industry has been ruined; towns have been destroyed. They will have to be rebuilt.

And they, every top Communist leader that I discussed the problem with, talked about the need of raising the standard of living of the Russian people and the devoting of their resources as much as possible to that

end after the war, particularly the production of consumer goods.

Fourth, a great desire for cooperation with America. The Russian people revere production, and to them America signifies production. I think, therefore, that the Russian people feel closer to the American people than perhaps to any others. They want to imitate America as far as possible.

Fifth, the reserve and suspicion of foreigners, particularly of Americans, seems to be lessening to a certain degree, at least.

And sixth, I believe that it is Marshal Stalin's complete desire to rebuild Russia and not to further engage in world conflict if he can avoid it. Russia is operating under a completely different economic system than we are, and I was perfectly frank with all Soviet officials in Russia to discuss that and to say that we did not want her system in the United States, nor did we wish any tampering by her in an attempt to overthrow our system in the United States. By the same token, we felt that she was perfectly entitled to whatever system she wished in the Soviet Union nor did we have any desire to interfere with it.

But I see no reason why we cannot cooperate in spite of that. I think that we have no conflicts of interests, other than that perhaps. Neither one of us, I am sure, wishes territorial aggrandizement from the other; neither one of us are competitors with each other in the markets of the world, and I see no reason why we cannot form bridges between our respective nations for greater trade

after the war. I think that a prosperous United States and a prosperous Soviet Union will go far toward preserving the peace of the world after the war.



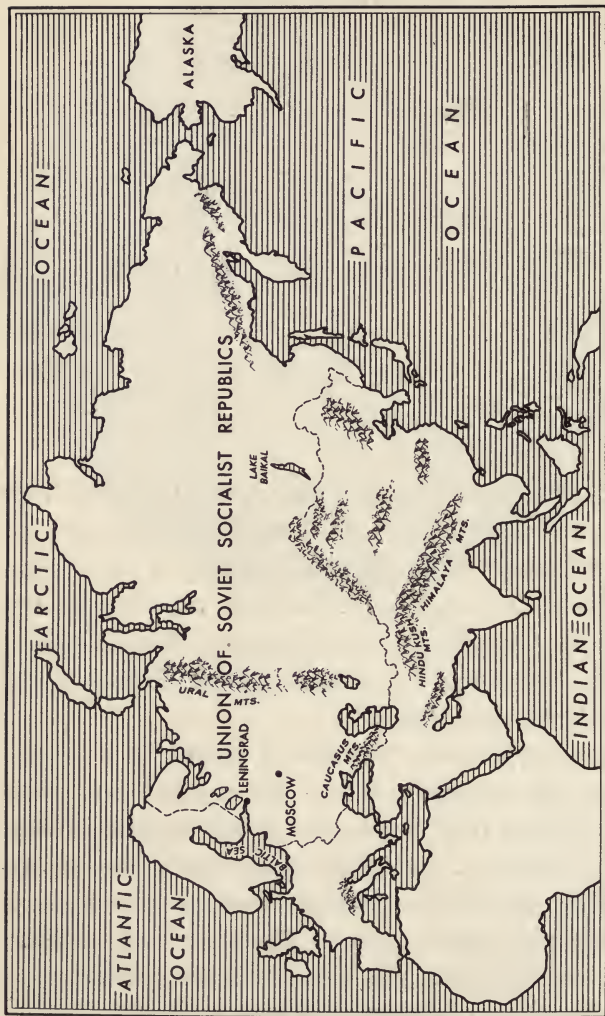
Cruising at an airspeed of 235 miles per hour, it is only 20 hours by plane from New York to Moscow. (Note that all the great circle air lanes from New York to the Orient cross the U.S.S.R.)

CHAPTER ONE

OUR NEAREST OVERSEAS NEIGHBOR

IN THE FAR BERING STRAITS which separate Alaska from Siberia there are two islands called Big Diomedé and Little Diomedé. Only three miles of icy salt water separate them and separate at the same time the United States and Soviet Russia; for the first of these islands is Russian and the second American; thus Russia is our nearest overseas neighbor.

Often people have thought of Russia as a far-off, strange and dangerous land. Since people are often afraid of what they don't know about, they have been afraid of Russia. Yet if we really knew Russia, we would see that there are many ways in which she is very like our own country. There are many differences, too, but let us first look at the remarkable ways in which the United States and Soviet Russia are alike.



The area of the U.S.S.R. is nearly three times as large as the United States, extending from the Baltic Sea on the west to the Pacific Ocean on the east. The U.S.S.R. has a population of 193 million.

First, both include a vast number of people with many different languages and customs. There are about 132 million people in the continental United States and 193 million in the U.S.S.R. The full name *Union of Soviet Socialist Republics* (often abbreviated U.S.S.R.) shows that when we talk of this country we are talking not only of Russia but of a union of 16 large and many smaller republics. Russia is by far the largest of these, with over half the population. Out of the total population of 193 million people living in the U.S.S.R., 109 million live in the Russian Republic. But the other republics are important, too, and will be discussed in full later. All the nationalities have their own languages. In the U.S.S.R. each is encouraged to keep and develop its own national character. The Russian language binds them together just as English binds us in the United States. However, in many sections of the U.S.S.R. the people speak languages quite different from Russian.

Second, like Americans, these various peoples live in an immense territory. The area of the continental United States is a little over 3 million square miles, while the U.S.S.R. is nearly three times as big. Eight million square miles make up their country, which is about the size of all North America, for the U.S.S.R. occupies nearly one sixth of the land surface of the entire earth. Within the boundaries of the U.S.S.R. are to be found almost all the types of land formations, resources,

climate and vegetation that we find in the United States. From Leningrad near the western border of the U.S.S.R. to Vladivostok on the Pacific Ocean is a distance over twice that from New York to San Francisco. If you made this journey by train, you would see, as you neared the Pacific, a milestone that would tell you that you had traveled 5,793 miles.

Third, there is something about the national character of Russia which is very like that of America. Both peoples are friendly, energetic, and eager. Perhaps there is something about the great open spaces, the rich resources, and the multitude of opportunities in each land which encourages a vigorous, joyful attitude toward life. Russians admire American methods of work, and have learned much from them; Americans, however much they may prefer their own country and its ways to all others, almost always like the Russians.

There are many other resemblances, but these are enough to show that we have much in common with the U.S.S.R. Many people think that on the successful co-operation of these two nations, together with all other freedom-loving peoples, depends the future of the human race.

A Land of Many Peoples

In the U.S.S.R. there are a number of important national groups, in addition to the Russians. Among these

are Tatars and the Mongols, peoples closely related to the Chinese. Then there are the peoples of the Far North — trappers, hunters, and fishermen — who have only very recently been brought into contact with modern industrial life. Under the rule of the Tsars they were despised as savages, but now they are recognized and respected; they even have their own Institute of the Peoples of the North, and they take their place in the Government equally with all other citizens.

In 1939 there were over 3 million Jews in the U.S.S.R. and more escaped into Soviet territory when the Nazis attacked Poland. Many Jews were moved from the western part of the nation to safety in Central Asia and the Far East.

*The Tsars Tried to Force the Russian Language
on All the People*

How do so many different nationalities, with different languages, religions, customs, and traditions, manage to get along with one another? Before the new Government came into power in 1917, there was often bitter conflict between the smaller nationalities, deliberately encouraged by the Tsar's officers so as to keep the people from uniting. Languages other than Russian were discouraged and even prohibited. Such schools, as existed, taught only in Russian, although almost half of the people had a native language other

than Russian. Many nationalities did not even have a written language. Their poems and stories were handed down from generation to generation by word of mouth only. Religions other than that of the Russian Orthodox Church, which was a part of the state, were discouraged.

*The Different Nationalities Now Encouraged
in the U.S.S.R.*

When the Soviets came into power, one of their first acts was to declare complete equality for all the peoples of the former Empire. All languages were permitted, and schools were set up in the languages of the people they served. The arts of each group were encouraged and provided with funds so that they could develop. New alphabets were invented for those who had none. Great emphasis was placed on developing the industry and agriculture of the backward regions so that they would have the advantages of modern methods. Furthermore, it was made a serious crime to do or say anything against any person because of his race or nation.

The result has been a remarkable development of the national cultures. Literature, drama, moving pictures, and opera have been richly developed by people who never had these before. Great poetry has appeared in some of these languages for the first time. The dance, always loved by the Russians and the other peoples of



The U.S.S.R. is composed of many different types of peoples—each having its own language and customs.

the Russian Empire, has found an especially fine development. Every year in Moscow there are festivals of

the cultures of various nationalities, and the dances during these festivals are even more popular than their plays and operas.

*Every Kind of Climate Is To Be Found
in the Soviet Union*

Every kind of climate is to be found in the Soviet Union except the steaming heat of the tropics. Most of the land lies farther north than our own country, however, and has a colder climate, for the greater part of the U.S.S.R. is far away from warm oceans and ocean currents. The northern part is above the Arctic Circle, where there is only weak sunlight during the winter months. Leningrad, the former capital of Russia and still one of its largest cities, is farther north than Juneau, the capital of Alaska.

There are ports on the Black Sea from which ships can sail to distant lands, but they must pass through the Bosphorus, the Sea of Marmora, and the Dardanelles to reach the Mediterranean. Situated on the Arctic Ocean, a thousand miles and more to the north, is Murmansk—while on the Pacific side is Vladivostok and Petropavlovsk. Other ports, like Leningrad, have access to the Baltic Sea on the west.

If you were to take a Soviet airplane from one of the farthest points in the North and speed southward, you would see that there are definite belts of climate.

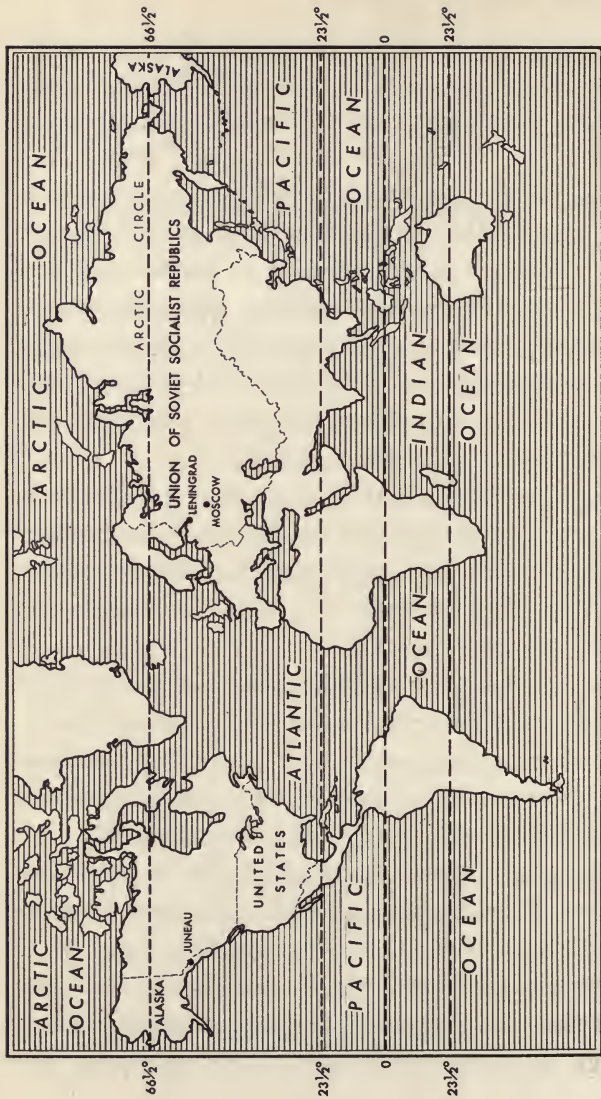
As your plane started from its arctic airport, it would first pass over the level land of the Far North, called the *Tundra*, where the ground in summer thaws only a few feet below the surface and is solidly frozen underneath. If you took your trip in the warmest part of summer, you would see this area covered with green moss; in the winter you would see vast wastes of snow. But, summer or winter, you would see new cities growing up in a region where, until recently, it was thought unfit for people to live. Formerly, in this area, you would have seen only hardy hunters, searching for foxes, sable, otter, silver fox and mink.

Next you would come to a forest land, wild and in many places unexplored even by the new Government which has done so much exploration because it wanted to find out what new resources could be discovered. This region is called the *Taiga*.

Farther south is the *Forest Steppe*—level and rolling, partly forested, where you would see many birch trees, loved by the Russian people and celebrated by their writers. In this part are many of the most important cities—Leningrad, Moscow, Gorki, Magnitogorsk.

As your plane flew farther and farther south, you would come to the *Steppe*, the wide and almost treeless plains which is the heart of Soviet agriculture.

This region lies south of the Trans-Siberian Railway which is the most important route from east to west. The large and small collective farms, growing the



Most of the Soviet Union lies farther north than the United States and has a colder climate.
(Note that Leningrad is farther north than Juneau, the capital of Alaska.)

wheat, rye, and other grains, which make the U.S.S.R. a farm land as great as the United States, are largely concentrated in this region.

Then farther south and to the east are the deserts of Central Asia and the oases, rich and green, where new canals have brought water from the rivers to the people and their lands.

Mountains

Along most of the southern border of the U.S.S.R. there are mountains; the Caucasus range, highest mountains in Europe, extends from the Black Sea to the Caspian. Across the southern part of Siberia there are other mountains reaching toward the Himalayas. Here the Tadzhik Republic of the U.S.S.R. touches Afghanistan and China, and almost reaches to India. The Pamir, called "The Roof of the World," raises its immense peaks and plateau over this region.

Although in the Far East there are mountains that run north and south, the only north-south range in the European part of the U.S.S.R. is the Ural, a low, forested chain similar to the Appalachians in our own country, and like them worn down by the glaciers whose millions of tons of ice scraped them and broke them and smoothed them. The Urals formerly acted as a barrier between Europe and Asia, but in these days

there is no real division. Magnitogorsk, one of the marvels of Soviet industry, is located in this region, but no one can tell whether it is a European or an Asiatic city. It has many of the characteristics of both. However, the great blast furnaces, the railroad yards, and the steel making there, would remind you more of our own great steel centers like Pittsburgh, Pennsylvania, or Gary, Indiana, than of either Asia or Europe.

CHAPTER TWO

EARLY DAYS IN RUSSIA

RUSSIA IS NEARER to the United States than any other country in Europe, Asia or South America. After Canada and Mexico, she is our third-nearest good neighbor. Yet we know very little about this Russian land which covers one sixth of the land surface of the globe.

Why is this?

There are many answers, of course, but the main one is very simple: Until long after the Pilgrims landed on Plymouth Rock, Russia was like a vast and rich estate surrounded by high walls in which there were no doors. Until the present war began, the Russians had managed to knock only a few narrow passages through that barrier.

When we speak of a wall, we don't mean something

built of brick and stone, with sentry boxes and iron spikes on the top. No, the wall around Russia was built of ice to the north, and thick forests, oceans, deserts and marshes on the other sides which proved far stronger than the Great Wall around China. For thousands of years it kept the Russians hemmed in and the rest of the world shut out. No wonder, then, that we still know so little about the land which is now called the Union of Soviet Socialist Republics.

Don't think that the Russians wanted to be isolated, or that all other peoples wanted to avoid them. Far from it. The country's history deals mainly with Russian efforts to knock holes in their wall so they could reach the outside world and with the struggles of some of their neighbors to close up those holes because they feared the tall, fur-clad men from the North. There were also attacks by other neighboring nations as they tried again and again to break through the wall to conquer Russia.

Let's spend a few moments in finding out how that long "battle for the wall" progressed.

Ancient Russia

We know that long before the dawn of history there were people who lived in what is now Russia, but we know very little about them. The first people, who left enough records so that we can feel we know them, were

the *Scythians*. They left graves with gold and silver ornaments, bronze weapons and sometimes iron swords. (Iron had only recently come to be used and represented a big step forward.) Very often the chief's wives, slaves and horses were buried with him. There were also bows, belts, bowls and other utensils ornamented with animal designs. Later on, when they came into contact with the Greeks along the shores of the Black Sea, the two peoples developed a style of art called Greco-Scythian, notable especially for its fine workmanship in gold.

The Scythians were not just one people, but a mixture of many. Some belonged to that group of people we now call Slavs (the Russians and some of the other Soviet people belong to this group), but many did not. They were nomads, traveling about the plains and hills to graze their animals. They lived in tents built on carts and drawn by-oxen. Their main food was boiled meat and mare's milk. They were warriors highly respected by their neighbors, depending mainly on their bows and arrows and their swift horses, which they equipped with saddles before the Greeks and Romans knew how. The Greek Herodotus, called "the father of history," wrote about the attempt of the Persian King Darius to conquer them. Darius failed; the Scythians used the "scorched earth" policy, driving away their cattle, burning the grass, and wrecking the wells. They retreated at first but finally turned and attacked their

enemy, weakened by lack of supplies. Darius was forced to retreat with only the remnants of his once great army.

The warlike Scythians were the most powerful tribe in ancient Russia, but there were other tribes, too. Some of these consisted of farmers who sent to Greece much grain for which South Russia is still famous. The various ruling tribes which replaced them followed a very similar pattern of life. Among these were: the Huns, who devastated most of Europe but left little lasting imprint on Russia; the Khazars, a very interesting people who adopted the Jewish faith as a body and founded a great empire; and the Golden Horde of Mongols and Tatars.

None of these, however, was so important in the development of Russia as the Slavs, who did not rise to great prominence until the 8th century. Even then they were not rulers in their own land, but were under the power of Viking lords and princes from the shores of the Baltic. These Vikings, always on the lookout for plunder, came down the Russian rivers in their dragon boats toward Constantinople, richest city in the world. They founded fur-trading centers at Novgorod and Kiev, and later, under their leadership, the first great Russian state was established with its capital at Kiev.

There is a famous story that the Slavs had invited the Viking Northmen to become the rulers in Russia, and it may be that they did so, because at this time north and



The first great Russian state was established in 862 by the Vikings who came down the rivers from the north and, under their leader Rurik, set up a government at Novgorod and Kiev.

south Russia were cut off from one another by an attack of the Khazars. It was very important for the trade of the land that the north-south routes be kept open, and the Northmen, with their eyes always on Constantinople, were glad to keep the rivers open. Within a few generations the Vikings had been completely absorbed by the Slavs, adopting their language and customs, intermarrying, and giving their children Slavic names.



During the 13th century, the Mongol hordes of Genghis Khan swept out of Asia and overran Russia. For over 200 years they ruled the country, greatly retarding its development.

The Hordes from the East

But this was by no means the last of the attacks on the Russians. In the 13th century the hordes of Genghis Khan swept out of Asia across the great plain which forms the heart of Russia and Siberia. They were fierce warriors, expert at swift attacks on horseback. Furthermore, they used new weapons which surprised the Russians very much—grenades of flaming oil which set on fire the log-built houses, and huge engines to break down the walls of the towns. The Tatars, or Mongols, swept everything before them, even beyond the west-

ern Russian lands into Hungary and Poland. Their main interest was in collecting rich tribute rather than in developing the country, but their vast empire could not hold together and began to break into parts.

The Golden Horde dominated the central region. The principal city there was Moscow. Moscow princes, beginning by collecting tribute for the Tatars, came into more and more power in their own right. When the Russians finally, under Ivan the Great, broke the last of the power of the Tatars, only traces of the once great Tatar empire remained—here and there groups of Tatar population, a few words in the Russian language and architectural ruins. But unfortunately for Russia, they had held back the development of the nation so that it was centuries behind the rest of Europe.

Peter the Great and the Beginning of Modern Russia

Peter the Great realized how backward his people were when he came into power in Russia in 1682, about the same time that William Penn was founding the Pennsylvania Colony in America. Most of the people throughout Russia at that time lived in log huts and dressed in furs—or rags if they were poor. Their gloomy cities were unlighted and unpaved. They made a meager living by trading in furs and farmed their land with the crudest of tools.

Peter the Great first tried to conquer Constantinople

so that his subjects might benefit from contact with the peoples of southern Europe, but the Turks were too strong for him and he turned back. Next he marched his armies westward and managed to open a "window" onto the Baltic Sea. There, on the swamps at the mouth of the Neva River, he built St. Petersburg, his new capital.

St. Petersburg wasn't a very good port. For almost six months of the year it was closed by ice. But it was much better than nothing. From that city Russian ships traveled all over the world. They came back with news of new inventions and new discoveries. The Russian people were interested in introducing some of these modern ideas into their backward country.

Catherine the Great

Catherine the Great carried on Peter's work. She felt that her country needed more "windows" looking out on western civilization. Like Peter, she tried to reach Constantinople. The Admiral of her fleet was John Paul Jones, the same man who served our country so brilliantly during our own Revolution. This time the Russians almost succeeded. But other nations feared that Catherine was becoming too powerful. They joined forces with Turkey and turned back the Tsarina's fleets and armies.

After that, Catherine decided to break through the



Although Peter the Great realized how backward his people were when he became Tsar in 1682, he managed to open a "window" onto the Baltic Sea. There he built his capital at St. Petersburg (now Leningrad) at the mouth of the Neva River.

wall to the Pacific. She sent armies of Cossacks to conquer Siberia. There was nobody to stop her. The Tatars had become too weak to do so, and no one else cared about Siberia since it was thought to be only a land of ice, snow and wild animals. For that reason, the hard-riding Cossacks added to their conquests at the rate of 50 square miles a day. Their advance continued until they actually crossed the Bering Sea and occupied Alaska. Russia was then able to send out her ships on both the Baltic Sea and the Pacific Ocean and became one of the most powerful nations of that day.

The 19th Century

Napoleon dreaded the power of Russia and tried to crush her in 1812. He was utterly defeated, but only after much of the country had been laid waste and Moscow, the capital, had been burned to the ground.

In the years that followed, things went from bad to worse. Tsar Nicholas I tried once more to seize Constantinople. He defeated the Turks but was, in turn, defeated in 1855 by England and France, when they came to Turkey's aid. That was the famous Crimean War which saw the siege of Sevastopol and the "Charge of the Light Brigade."

The common soldiers in the Russian Army during this disastrous campaign were *serfs*. They lived on the estates of great landowners and worked the land with-

out pay. The noble landowner had almost complete control over their lives; he could and did sell them, and even put them up as stakes when he gambled at cards. With the wealth which the serfs produced, the nobles lived lives of elegant idleness while the serfs lived in deepest poverty. Only at night and on holidays could they work their own lands for themselves. When the army needed them, they were forced to fight; but a modern army could not be built from serfs. Alexander II, who had become Tsar, saw that serfdom must be abolished. He feared a revolution and said, "Better that the reform should come from above than wait until serfdom is abolished from below." He freed the serfs, just about the time that the slaves were set free in the United States. But the peasant got only about half the land he had worked, and even then he did not get it outright, but had to pay the landlord for it. There was bitter discontent among the freed serfs, and they longed for the time when they would really own the land which they worked.

Alaska Is Sold to the United States

Another result of the costly Crimean War was that Russia was forced to sell Alaska to the United States in 1867. The entire peninsula, with its rich resources in fish, furs and minerals, cost our nation only a little more than 7 million dollars. It has paid for itself many times over.

The Last of the Tsars

Nicholas II, when he became Tsar in 1896, was determined to carry on Catherine the Great's policy of expansion toward the East. In 1900 his troops occupied Manchuria, and soon they were at war with the Japanese, who wanted that rich territory for themselves. The war ended in 1905 in a terrible defeat for the Tsar. It also caused a revolution back home in Russia, where the people were getting impatient with the endless and expensive fighting.

Nicholas managed to put down the revolution and to keep his throne. He granted a few reforms, among them giving his country its first Duma, or Congress. But when the World War broke out in 1914, he forgot all his good resolutions. Now, at last, he thought, there was a real opportunity to expand toward the south and capture Constantinople. So, although his country was totally unprepared to fight and was almost bankrupt, he plunged his unwilling people into the struggle.

CHAPTER THREE

THE U.S.S.R. IS BORN

THE RUSSIAN ARMIES from 1914 to 1917 fought very hard, won great victories and kept enormous numbers of German troops so engaged that they could not be transferred to the western front to be used against the French and the British. But the inefficiency of the Russian military staff, the inability of Russian industry to provide enough munitions and supplies, and the lack of any real reason for fighting the war made a large number of the soldiers begin to wonder why they were not home improving their own land instead of killing men with whom they had no real quarrel. They began to make friends with the German soldiers and to urge them to make peace. They even began to leave the front to go back to work on their land. As Lenin said, "They

voted for peace with their legs," for many of them deserted.

The Last of the Tsars

The history of Russia helps to explain why this should be. We need to remember the important point that the Government was entirely in the hands of an absolute ruler, the Tsar. One of his many other titles tells us pretty clearly how his powers were regarded— "Autocrat (or absolute ruler) of all the Russias." There had been many kinds of Tsars, including a few who really desired the welfare and prosperity of their peoples, such as Peter the Great, and Alexander II, who freed the serfs. But even these never thought of allowing the people to rule themselves. The last one Nicholas II, who was Tsar when the World War of 1914-18 speeded the downfall of his empire, was well known for his determination never to surrender his power.

Furthermore, there was a deep and burning resentment on the part of most of the non-Russian peoples against a Central Government which scorned their way of life and gave them no chance to develop it.

By February, 1917, the Tsar had no real support and had to give up his throne. The new Government, called the *Provisional Government*, was headed by Alexander Kerensky, who was backed by the council



Lenin, the father of Modern Russia, and Stalin in October, 1917, from the drawing by P. Vasilyev.

(the Russian word for council is *Soviet*) of workers, soldiers and peasants, on whom it depended for its power. But this Provisional Government did not give the people what they wanted, so it did not last long.

Lenin and the Bolsheviks

Meanwhile a party had been formed, called the *Bolsheviks*, led by Lenin, which promised to give them the three things which seemed to them most essential. These were:

1. *Peace*. The Russians no longer could or would fight in the war, though in World War II they were to prove that they could fight brilliantly when they were fighting for their own land.

2. *Bread*. For a long time the Russians had been

living without enough food. They had never had as well balanced and as full a diet as most Americans, but they did usually have enough bread. This was their most important food, and their rich wheat lands had produced enough so that even on their scanty acres they could raise the grain, bring it to the mill to be ground into flour, and bake their bread. Now they could no longer do so. Many farmers had been taken away from their work to be soldiers, and these still had to be fed. Others had been taken into war industries; they, too, had to eat. Some of their land had been conquered by the Germans. Furthermore, profiteers had hoarded much grain, seeking enormous profits in the rising prices. The Russians had to have bread.

3. *Land.* The peasants saw their small fields and contrasted them with the great territories belonging to the nobles for whom they worked. They had for centuries wanted to own the land. They planted and cultivated it, and they brought home the harvest. Then the wealthy owners sold it to distant lands, and lived in luxury on the income it brought. The peasants were determined to take the land for themselves.

The Provisional Government had promised bread and land, but had not given it to the people. Kerensky and his associates in Government wanted to continue the war on the side of the Allies, although Russia was by this time far too exhausted. So the people forced out the Provisional Government and gave the leader-

ship to the Bolsheviks. This was the *October Revolution*.

The Soviets Come Into Power

The Soviets became the Government. Lenin was the head of the new Council (or Soviet) of Peoples Commissars. Stalin, who came from Georgia in the Caucasus and had for many years been especially interested in the problems of the non-Russian peoples, was made Commissar of Nationalities. Trotsky, a clever orator who had only recently joined the Bolsheviks, was put in charge of the new army developed to fight the troops of the landowners and the 14 different nations which sent their armies into Russia to try to overthrow the new Government.

The first things the new Soviet Government did was to declare that all land belonged to the people, and to issue an appeal to the working people of the whole world to make peace without taking over the territories of others.

The leaders of the new Government had believed for many years that all of the industries and the resources of the world should be owned jointly by the people who work them. This is a very different idea from that held in America, where individuals and groups of individuals own farms and factories.

Americans believe that their plan of private owner-

ship is far better. The Russians do not think so. They made the banks, the railroads, foreign trade, and all big industries the property of the Government. Small businesses were left in private hands; and the farmers had many more chances to make a good living because the holdings of the big land owners were divided among them, so that they had much more farm land than they ever had before. A law, passed for the advantage of the city workers, shortened their working hours in the factories to eight hours a day.

At the same time the Soviets tried to carry out their plan for a peace without conquest. They sent many appeals to the world to agree on a peace treaty. Although President Wilson recognized the value of some of their ideas and included them in his famous 14 points, most Governments refused to deal with the new revolutionary Russian Government.

Lenin and the other Russian leaders, finding that they could not work out a just peace, were forced to sign an unjust one. By the Treaty of Brest-Litovsk, the Soviets had to give up their richest wheat lands in the Ukraine as well as some of the Caucasus in the south. In the north, Finland had been recognized as an independent nation, and the lands along the Baltic Sea were also taken away and formed into the republics of Lithuania, Latvia and Estonia.

The treaty did not bring peace. Britain, France, the United States, and Japan, among other Governments,

sent troops to fight the Soviets. Those Russians, who believed in the Tsar and the old way of life, were called "White Russians". They fought with fury to reestablish the old regime. But the invaders and the troops of the "Whites" could not overcome the newly formed Red Army. By 1920, the Ukraine and Georgia had come back into the Soviet Union. However, Finland, the Baltic States and Poland remained independent republics.

The loss of these territories was a serious blow to the new Soviet Government. For one thing, they included many of the ports and a considerable portion of the industry and farm lands. The Soviets had announced the right of all people within their Union to form Governments, including the right to separate themselves from any Government they did not want. The states that had left, or seceded, had done so largely under German pressure. There were many who believed that the Baltic States would return to the U.S.S.R. when a stable Government was established. As for the eastern part of Poland, the White Russians and Ukrainians there looked forward to reunion with their brothers on the other side of the Soviet border.

It was not long before the first Soviet Constitution was written and the leadership of the Communist Party firmly established. Other parties that had been active in the early Soviet Government joined the "White Russians" and were declared illegal so that they no longer had any standing in the new Government.

War Communism

This was a period of terrible difficulty for the whole country. Already exhausted by the World War, it was further ravaged by civil war and the intervention of foreign powers. In order that the people should have the mere minimum of necessities, the Government made all pay equal, enforced strict rationing, and took from the peasants all the grain they had except that necessary for their own food and for spring sowing. This was called *War Communism*.

New Economic Policy

As soon as the wars were over, Lenin and his associates, realizing that the country had to have a breathing spell and that in *War Communism* they had gone too far, proposed a *New Economic Policy* (usually called by its initials NEP). Instead of taking all the grain, a fixed tax in grain was levied, and peasants were allowed to sell their surplus in the open market. Small private trading and manufacture were also allowed. Some people thought the Soviets had given up socialism, but Lenin insisted that they had taken one step backward in order to go two steps forward. He pointed out that big industry, the banks, foreign trade, and the railroads remained in the Government's hands.

CHAPTER FOUR

CONDITIONS IN THE U.S.S.R. AFTER THE FIRST WORLD WAR

YOU CAN IMAGINE that Lenin, Stalin and other leaders of the revolution weren't very happy when they looked at the wreck of a country which they had taken over after the Treaty of Brest-Litovsk, but they were not discouraged. At the same time that they struggled to end the civil war, they started to find out what were the real resources of Russia.

The Soviet Union still extended over the greater part of eastern Europe as well as vast areas of Asia and at that time had a population of 140 million. Its resources were not developed but they were rich enough to stagger the imagination. There were endless acres of rich black soil, more than half the world's oil supply, and vast quantities of gold, iron, copper, coal, cotton,

wheat, . . . and almost everything else that a modern nation needs could be found somewhere between the borders of the U.S.S.R. from the Atlantic on the west to the Pacific on the east, and from the Arctic Ocean on the north to the Black and Caspian Seas on the south.

One Sixth of the Globe

Russia owned one sixth of the land surface of the globe—more than 8½ million square miles—and held one twelfth of the world's population. Its inhabitants were made up of many different peoples speaking 125 different languages.

The center of the nation was one endless plain which extended half around the world from east to west. Although roads were few and in bad condition, it was possible to travel along the many rivers to almost any part of the nation. These rivers included the Dnieper, flowing south into the Black Sea; the Don, flowing south into the Sea of Azov; and the mighty Volga, largest river in Europe, flowing south into the Caspian Sea. Flowing north into the Arctic were the Dvina; the Ob, which is as long as the Amazon; the Yenisei and the Lena. Nor should we forget the Amur, another mighty stream running east and then north into the Sea of Okhotsk north of Japan. These rivers could be



After the October Revolution of 1917, Lenin and his followers were faced with many dark days in trying to establish a new socialist state in a backward country on the ruins of Tsarism, revolution and civil war.

made to generate enough electricity to turn the wheels of thousands of factories.

Northward, Russia's territory extended across the forest land and the eternally frozen, moss-covered tundra to within 621 miles of the North Pole. And southward it reached the same latitude as Los Angeles, California. It had an average breadth from north to south of 1,500 miles and its climate varied from arctic to sub-tropical so that there were polar bears on the northern shores and tigers in the southern thickets of the U.S.S.R.

In the south there were deserts, oases and the towering Caucasus and Pamir Mountains. There also were the endless, flat steppe lands where wandering herdsmen lived in their yurtas, or tents made of horsehide. On the steppes, grass grew as high as a horse's head. Only irrigation was needed to make them produce rich crops of cotton, flax, grapes and even lemons and oranges.

Then there was Siberia, a land as yet almost unexplored, but known to hold riches even greater than those of Europe.

That was the pleasant part of the picture which 140 million Russians beheld after they had overthrown the last Tsar and were preparing to become owners and bosses of their country for the first time in history.

But there was an unpleasant part of the picture, too. In fact, it was so unpleasant that we Americans can hardly believe it. Nevertheless, let's take a quick look at living conditions in Russia in the year 1917 so that we may understand the job the new Government had before it.

How the People Lived

The greater part of Russia's population consisted of peasants, or, as we would call them, small farmers. Let's see how they existed . . . it was not a pretty picture.

These peasants did not live on individual farms, as farmers do in America. They huddled together in tiny villages. These hamlets had no sidewalks, trees or front yards. The streets were wide, but only to keep the frequent fires from spreading among the straw-thatched, log huts. In the spring these streets were rivers of mud — thick, sticky mud which collected on the boots of the villagers in heavy lumps and made walking a difficult task. In the summer the streets were ankle-deep in dust; the winters piled them high with snow.

The floors of the huts were of dirt, unless the owner was well-to-do. In that case they were of rough boards laid right on the ground. The furnishings consisted of backless benches, a table and perhaps a few home-

A modern country village in the Chuvash Republic of the U.S.S.R. Formerly these people lived in tiny huts with holes instead of windows and smoky stoves without chimneys.



made chairs. Beds were piles of straw and rags. The only decorations were icons, or religious pictures, on the mud-covered walls.

The peasants made their own clothes out of flax, hemp or wool. In summer the men wore trousers and smocks, the women wore long dresses with many petticoats. In winter a sheepskin coat and cap, with the wool turned inside, was added. On holidays the farmers wore leather boots, but at work they wrapped their feet and legs in rags during the winter, and in summer made moccasins of bark. Underwear, stockings and socks were unknown.

No one thought of eating meat except at weddings and other special occasions. If a peasant raised a cow or a pig, he usually sold it to his landlord. With the proceeds he first paid his heavy taxes. With the few kopeks that were left, he bought a few crude tools or perhaps a pair of shoes.

Often the women, especially in the East, were treated worse than our Indians treated their squaws. They did most of the hard work, even being harnessed to wooden plows when horses or oxen were lacking. They spoke only when spoken to, and were beaten black and blue for the slightest offense. As for the children, they seldom had a chance to go to school. In the summer they helped with the endless farm work, hoeing, picking wild berries and minding the livestock. In the winter and early spring, when it was almost impossible to walk

through the mud or snow, they huddled around the big brick stove which provided the only heat in the crude hut. Seldom could they even look outside, for glass was too expensive to be used as window panes.

Almost always the peasants of Russia were hungry. They lived on a meager diet of bread, boiled potatoes and cabbage soup. As a result, they suffered from all sorts of diseases. But when they were ill, no doctor came to see them. There were only a few thousand doctors in all of Russia.

We have been talking about the small farmers in the European part of the nation. In Asia conditions were

An old-fashioned wooden plow used by the peasants in the central Caucasus. Today on the large collective farms, tractors are now used to pull the new metal plows.



even worse. There most of the people were herdsmen who lived in tents, even during the coldest winters. All education was forbidden by the Mohammedan priests or mullahs who ruled the country from their mosques. Women had to wear veils, and children were bought and sold like cattle. In far-off Yakutia, in Siberia, sharp traders could often buy a reindeer for a packet of needles, or purchase the priceless skin of a sable for a bottle of cheap liquor, called *vodka*.

Life in the Cities

But what about the factory workers of Russia some 30 years ago? Weren't they better off, you may ask? No, they actually were worse off. While the peasant at least owned his house, some livestock and a few scattered pieces of land, his city cousin owned nothing at all except the clothes on his back and perhaps a few sticks of furniture.

The average factory worker slaved from dawn to dusk in badly-heated, badly-lighted and unventilated rooms. At night he and his family slept on the floor in a huge barracks owned by the company. His wages were only a few cents, or kopeks, a day. His chances of educating his children were very slim indeed. In those days only a small part of the population was in school.

Here is the way in which the Moscow City Council

described the homes of that city's workers before the revolution:

"The stairs which led down to the dens, which the people inhabited, were covered with all kinds of filth, the dens themselves are almost filled with dirty boards, upon which there is equally foul bedding, and in the corners there is only dirt. The smell is heavy and close. There is hardly any light because the dens are half underground and little light obtains entrance through the dirty windows. Beneath the window it is absolutely dark; the walls are damp and covered with mould."

That report by the Moscow Council was made before World War I when times were "normal." Imagine then, what must have been the situation of the workers and peasants after their country had been defeated by Germany and after it had been swept by civil war for several more years.

By that time most of the factory owners had died in the fighting or had fled abroad. Most of the plants had closed their doors. What few continued to operate were not producing food, clothing and such things. Impossible as it may sound, most of them were making useless trinkets, such as cigarette lighters and musical snuff boxes. Tens of thousands of workers were homeless and starving, and their children roved the countryside in packs like hungry wolves.

The railroads—even the great Trans-Siberian line which runs from the Baltic to the Pacific—had almost

ceased operating because the locomotives were worn out and few people knew how to repair them. In one of Moscow's museums today there is a painting that shows the great celebration which took place when a professor of science gathered some of his students together, took them down to the railroad yards and finally managed to repair just one locomotive. It was an historic event when that engine dragged a few box cars to Leningrad where they could be loaded with food for the starving people of Moscow.

Out in the country the peasants fared little better. Gangs of bandits roamed the countryside and stole what little food there was left. In desperation the farmers banded together and fought off all comers, without asking whether they were friends or foes.

Getting the New Government Started

But, as we said before, the new Government did not despair. First, it organized the Red Army and somehow succeeded in driving out the followers of the Tsar, the Germans and the Japanese. (It should be noted that the firm attitude of the United States at that time played a big part in forcing the Japanese out of Siberia).

Then the Soviet leaders started to develop their country, little by little. It was a tremendous task, much like lifting oneself by one's bootstraps. Most foreign countries distrusted them, so they could borrow no

money with which to import the things they needed. Few engineers and scientists were left who knew how to organize industries and start factory wheels turning. Yet, despite these handicaps, the job was begun.

Moscow said to the peasants: "For thousands of years you have wanted to own good farms instead of the poor little strips the landlords sell or rent to you. All right, then. Throw out your landlords and divide their land among you."

You can imagine the enthusiasm with which the peasants followed this advice. They split up the big estates, including the hunting preserves and parks and idle land, and immediately began to plow and cultivate them.

Then the Government said to the city workers: "The owners of the factories have run away. Therefore the factories will, in the future, belong to the men and women who work in them. Come back to your jobs. Open the factories and learn how to run them. If you don't do this, we shall all starve to death."

The workers scratched their heads and hesitated. How could they, ignorant as they were, most of them unable to read, ever learn to run a steel mill or a locomotive factory? But they were very hungry, and the younger people, like pioneers the world over, were eager to try something new. They formed co-operatives and elected their smartest members to be managers.

Slowly the wheels began to turn. Terrible mistakes

were made. Locomotives were completed with wheels of different sizes. The steel was full of blow holes and almost as soft as ordinary iron. But they learned by doing. Gradually a stream—a thin stream—of manufactured goods began to appear on the market.

Then came the questions: which railroad needs locomotives most? Which factory should have steel? Where should we send the shoes we are making? How can we collect food from sections where the harvest is good and send it to places where the people still are starving? How? When? Where? Which? Why? Solomon, wise as he was, would have had trouble in answering the thousands of questions with which the country was faced.

CHAPTER FIVE

THE FIRST FIVE-YEAR PLAN

THE OFFICIALS WHO MET at the Kremlin, the Moscow headquarters of the new Government, discussed for many days the serious situation that existed throughout the U.S.S.R. They knew that the millions of people throughout the nation were looking to them for help and guidance. What should they do? Finally, someone came forward with an idea:

“Look,” said this someone, “we need a plan—a big plan—a plan for all of the Soviet Union. First we must gather information from all parts of the country as to what we can produce. Then we must find out just what the people need: How many pairs of shoes. How many pairs of pants. How much bread. How much cabbage soup. How many locomotives. How many baby car-

riages. How many electric generators. How much of everything and anything.

"After we get all of those facts, we shall divide up the work so that everyone will produce his fair share of goods. And we shall send those goods out through the country so that each person will get his fair share of them. Nobody will have very much, but nobody will starve, and in that way we shall get the country on its feet."

Now it's certain that nobody in the Kremlin ever used just those words. But that is the general idea of what went on. Something had to be done quickly and, since no one offered a better idea, this one was adopted.

Soon thousands of the best minds that could be found were at work. Officials toiled night and day, collecting facts; fitting them together like pieces of a jigsaw puzzle; sending experts to get new facts; fitting them into the holes. This State Planning Commission, or Gosplan, as it was called, was formed in 1921. It toiled steadily until 1928. In the meantime the country staggered along as best it could, while the workers were learning to run their factories and the peasants were developing their new farms.

In 1928, the Planning Commission finally presented to the people its famous Five-Year Plan.

It wasn't at all what most folks had expected. The average woman or man rubbed his eyes and scratched his head and completely failed to understand. He had

expected that the plan would provide for millions and millions of boots, trousers, cookstoves, and maybe automobiles and grand pianos. Instead, it called for very few boots and stoves, and still fewer automobiles and pianos. And what was this about new steel mills, dams, tractors and electric plants? What was going on here? What kind of a plan do you call this, anyway?

"Well, citizens," the planners explained patiently. "There are only so many factories in the Soviet Union, and they are not very good ones. Now we know that you need boots and trousers and cookstoves. If we put all our factories to making those things—things you can use right now—you will have plenty of them. But you will never have your automobiles and your pianos.

"Therefore, we have proposed that the first thing this country needs is more factories, more power to run the factories, and machines which will make the machines to put into those factories.

"Not only that, but we know that Germany's generals intend to fight another war. If they do that, they will be sure to fight us because they want the Ukraine as a place to grow grain to feed their armies. If we are to stop her, our Red Army must have thousands of big guns and tanks and airplanes. To get those weapons, we must build factories that can make them, for certainly no other nation is going to sell them to us, even if we had the money to buy them.

"So, citizens of the Soviet Union, you can take your

choice. You can have all the clothes and food you want right now. Or you can wait until we build the new factories we need. If you vote for the factories, we will see that nobody starves or freezes. And in the years to come, you will not only have all the food and clothing you need, but you will have automobiles and grand pianos and new homes and even radios and electric refrigerators. Don't be in a hurry. Think this over carefully. Then decide."

The Russian people are not fools. For months they talked things over in their new schools and their clubs and their trade unions. They had been on short rations for so long, they agreed, that five years longer wouldn't matter very much. Besides, it would be thrilling to see how many new factories they could build.

"All right," they finally said. "We vote for the factories. But look here. We have talked this thing over. You have asked a few of us to do more work than we possibly can do, so we suggest that this part of the plan be revised downward. On the other hand, you have asked many of us to do less than we can do, so we think this other part of the plan should be made larger."

The Gosplanners were pleased as could be with this reply, which they called a counter-plan. They made the changes suggested; they organized nationwide competitions between workers in various industries and various cities. And the Five-Year Plan started with a bang that was heard round the world.

CHAPTER SIX

SUCCESS OF THE FIRST FIVE-YEAR PLAN

THE SOVIETS STARTED on their first Five-Year Plan in 1928 after four years of "breathing spell" under the NEP (New Economic Policy). The new plan was different from any previous government program, for under it the Soviets decided to make their country over from one that had been mainly a farming land, to a nation that would be primarily industrial—that is, one which made the machines, the tools, the electricity, the factory goods of a modern industrial nation such as our own. They had to do this for two reasons. First, without it they could never produce enough goods to give every citizen everything he needed, which was their aim. Second, they had to industrialize in order to have a strong national defense. They feared that other nations

would attack them, as had been done before, in order to destroy the Soviet Government.

Industrializing the U.S.S.R.

To industrialize the Soviet Union was an immense task, especially since they had to start with so little industry. All the wealth they could possibly afford had to go into the task. Millions of workers who had never seen a factory had to be trained. The Soviets not only had to make machines which would produce the factory goods; they had to first make the tools and build the factories that would make the machines. They had to go even farther back than that—they had to find the coal and the iron and the other metals to turn the iron into steel which was needed to make the other machinery which would take the raw material and make it into something people could use, such as clothing or automobiles. The size of this task was incredibly great. The United States had faced it and carried it out. But we had required a century. The Soviets set out to do the same in a series of five-year plans.

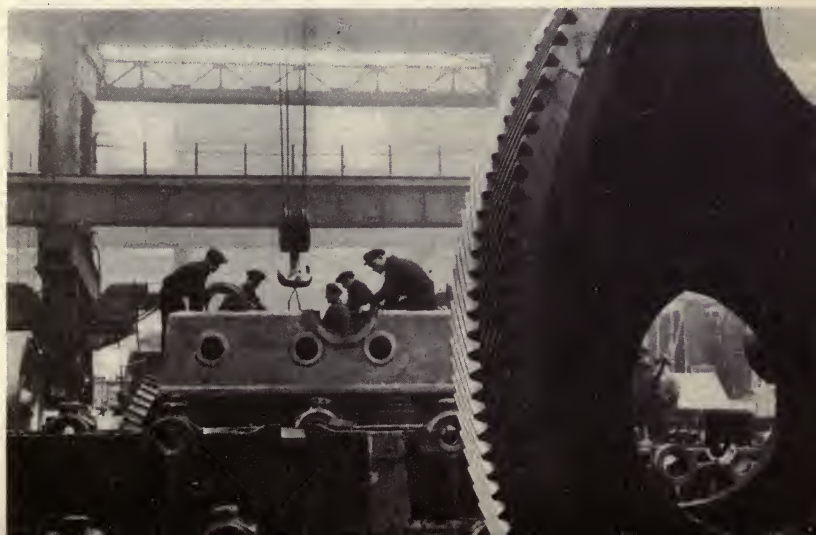
They had two great advantages—the tremendous natural resources of their vast land, and the energy and determination of their many peoples who were burning with a belief that they had found, for the first time in history, a way to conquer man's greatest problems and

to establish a world which would be rich and joyous for everybody. Even so, most foreigners thought their plans were fantastic, and produced hundreds of good reasons why the Soviets would surely fail. Some of the Soviet leaders themselves trembled at the immensity of their task and the multitude of problems that faced them.

As the people of the Soviets started working harder and faster than they had ever done in their lives, the "experts" in other countries shook their heads. "It can't be done," they said. "Russia is too far behind the rest of the world to catch up. It never should try to build factories. Let it grow wheat and cotton. Agriculture is all that country is fitted for."

But the Russians were sure it could be done. Of

During the first Five-Year Plan, the Soviets began the immense task of making over their country from one that had been mainly a farming land, to a nation that would be primarily industrial.



course, there were a few idlers who shirked and complained. And there were German spies and Japanese agents who tried to stir up discontent. Also, the work was hard because tools were scarce and the people didn't know quite how to use the ones they had.

To solve their problems, they sent to America for experts to help them, and they worked day and night, summer and winter. In some places in Siberia it got so cold that they had to build wood and canvas covers for their new factories so that they could pour concrete for the walls without its freezing.

The work was slow at first, but they made progress. On the lower Dnieper River, at Zaporozhe, they started construction of a great dam with electric generators which would supply 810,000 horsepower. Hills were dynamited, roads were built, and a vast army of men were employed to throw an arc of solid concrete across the roaring stream. When there weren't enough steamshovels, peasants toiled with spades, pickaxes and even their bare hands so that the work might go ahead on schedule. Again and again spring floods swept away part of the construction. But always the damage was repaired and the work went on.

Expeditions were sent all over the country, searching for new minerals which could be developed. In the Urals these explorers found a mountain—*Magnet Mountain*, it was called—which was made up almost entirely of pure iron. A thousand miles away, at Kuz-



This great dam across the Dnieper River was built with the advice of American engineers under the direction of Colonel Hugh Cooper, U.S.A. When the Germans threatened this area, the huge power station was taken down and shipped east of the Urals. Then the Soviets blew up the center of the dam so that it would be of no use to the enemy.

netsk, they discovered thick veins of coal. And shortly thereafter an army of workers descended upon the district to start building blast furnaces which would make steel, and they dug mines to provide the coal to heat the blast furnaces.

Along with these great strides of industrialization, a similar transformation was taking place in the countryside. Here for centuries the peasants had lived in ignorance, cultivating small separated strips of land by the most backward methods, scratching the surface of the land with wooden plows drawn by humans when the peasants had no horse, and planting their seed when the priest said that the proper Saint's Day had arrived, not when the weather was right. Their lands, though they were often very fertile, were badly treated because the peasants knew nothing of scientific methods of farming. They could not use farm machinery, even if they had known about it, because the land was cut up into small strips or plots, and farm machinery is suited only to large areas.

Clearly the cities could not advance toward complete, modern, mechanized industry while the farms remained in the middle ages. The difference between the outlook of city and of country people would have been so great that no unity could be achieved. Furthermore, the great growth in the number of city workers and the needs of the army required a constant flow of food from country to city. Also, machinery and factory

equipment had to be purchased from foreign lands and paid for with farm products. The country did not produce enough to meet these needs, and the farmers had no great interest in selling what they did raise. The trouble was due to the fact that the newly-begun Soviet industries could not produce nearly enough for the farmers to obtain manufactured goods with their money.

One big part of the Five-Year Plan called for the construction of up-to-date farm machinery. At Moscow, Leningrad, Stalingrad and other places the shiny new factories soon began building thousands of tractors, threshing machines and cultivators which would help the peasants to plant and harvest more and better crops. That machinery certainly looked fine as it rolled off the production lines, but it caused trouble—plenty of trouble.

You see, the peasants didn't know how to use machines. Since time began, they had plowed with forked sticks, reaped with sickles and scythes and threshed by beating the grain with long stocks, or flails. When they saw the new tractors coming down the roads under their own power, many of the peasants ran screaming into the woods, thinking that devils were after them.

But even the peasants who were willing to use the new tools and who managed to learn how to operate them, were helpless. They just couldn't take advantage of them. Their farms were too small to use big machines.

Often a peasant would own an acre of land here, another acre five miles across the valley and a third acre somewhere else. He spent most of his work time going from one patch to another. On his bits of land he could hardly turn a tractor around.

*The Small Farms Are Made Into Large
Collective Farms*

Something had to be done about this, so the Five-Year-Planners said to the peasants: "Why don't you throw your lands together into big collective farms—farms of thousands of acres which you will own in common. Tear down your fences and your hedges. Make huge fields where the tractors and threshers can operate efficiently. Then, at the end of the year you can divide the profits."

Some of the peasants thought that this was a good idea. Others said that their fathers and their grandfathers before them had owned those strips of land, and they weren't going to give them up now, machinery or no machinery. There were endless discussions and even bloody fights over the question. The farmers were urged, and in some cases even compelled, to pool their small holdings into one large farm. They were allowed to keep a small plot around their house and a number of farm animals, but the rest became the property of the farmers as a whole who worked the farm as a group.

Now they could farm the vast acres with machinery, provided by the growing industries and loaned or sold to the farmers by the Government. They could obtain other needed material on credit. The services of scientifically trained farm experts helped them to get the most out of their land. Instead of every farmer having to do all kinds of farm work, each could become more efficient by specializing in some few skills.

In 1928, when the first Five-Year Plan was begun, only 3 per cent of the farmers were on such collective farms. By 1934, the proportion was 75 per cent. And now, except for the state farms, which are much like state experimental farms in our own country, almost the entire farming area has been formed into collectives.

The improvement in agricultural production was immediate, and it is hard to see how the Soviets could have fed their army and people in the tremendous trial of war if it had not been for the collective farm system. But it did not come into being without terrible struggles. The richer peasants, called *kulaks*, had for many years hired the poorer ones to work for them and made considerable profit that way. They had lent money at high rates of interest. Often the poorer peasant, lacking a horse to do the work, had to pay large amounts to kulaks to hire one. Under the new system no one could make a profit from anyone else. This meant the end of the kulaks, and they fought the new system with every weapon they had. They persuaded many of the farmers

that the new system was irreligious, wicked, and would take away all they owned. Many believed them, and even those who did not believe were shaken. Thousands of farmers killed their cattle, pigs, and horses—rather than let them become the property of the collective. There were many other troubles. The farmers did not know how to use the new machinery, which consequently often broke down and was junked. Many churchmen, fearing that their religion would be destroyed, used all their influence to wreck the collectives first. But the big new farms won out after all. The kulaks ceased to exist as a social class; they were forcibly removed to other parts of the country, especially to logging camps in the North. One of the cheering parts of this story is that many of the ex-kulaks made splendid records in their new situations, became honored Soviet citizens, and some received government decorations.

The collective farms stretched as far as the eye could see. Each had its own village center, with a modern dairy, garage, machinery station, school and clubhouse. Experts came from distant cities to teach the people modern methods of farming. Soon the land began to produce many times more grain, sugar beets and other crops than it had ever done before.

Workers and peasants then became tremendously enthusiastic about the new Five-Year Plan. They did more than they were asked to do. When a factory cost



Wheat is a principal crop in the U.S.S.R. Here we see one of the women workers harvesting the grain on a collective farm.

more than had been expected, or more seed or tractors were needed in a hurry, the people often went without sufficient food, clothing and sleep so that the job could be done on schedule or even ahead of schedule.

In those days there was a story told about a man from Kiev who arrived in Moscow in the dead of winter. A blizzard was raging. The temperature was below zero, but the man's only article of clothing was a worn pair of trousers. Nevertheless, he ran from the railroad station to the headquarters of the Five-Year Plan, singing as he ran.

"Here, here, comrade," cried one of the officials when he burst into the room. "Why are you running about in a blizzard with practically no clothes on?"

"Don't worry," answered the visitor with a wide grin. "These are all the clothes I have left, but I just had to come and tell you that down at Kiev we have finished the Five-Year Plan *in four years!*"

CHAPTER SEVEN

THE SECOND AND THIRD FIVE-YEAR PLANS

DESPITE THE PEOPLE who said the job couldn't be done at all, the Soviet Union as a whole completed its first Five-Year Plan in four years and three months!

No sooner had the Russians started to relax and catch their breaths, however, than the officials at Moscow said: "Look, citizens, we have just begun to work. We have done many things since 1928 . . . built factories and machinery and railroads and dams and canals. But we are still far behind the rest of the world. And Germany continues to prepare for war! So here's the Second Five-Year Plan, all ready to start work on. After that, we will still keep on planning and working. We think our country has enough resources and enough willing and intelligent people to catch up with the United

States of America. What do you think of these plans?"

Now the Russians have always admired us Americans and our high standard of living. They wanted to prove that they could do things as well as we can, so they buckled down to work harder than ever.

The Second Five-Year Plan

In 1933 the Second Five-Year Plan was begun. It aimed to continue the development of industry but especially to master the use of the factories, mines, mills and machines that had been built. In line with this, the greatest emphasis was on education, both technical and social. That its aim was largely achieved is shown by the doubling of the output per worker as compared with 1929. The ignorant, uprooted peasants, who had flocked to the cities were learning fast how to work with factory machinery, though they were still far behind the skilled American worker.

This time, things weren't so bad. Those new factories were turning out much more clothing, and the collective farms were producing more food. Wages increased and prices went down. Big stores were opened all over the country where people could buy the things they really needed and even some little luxuries like phonographs and perfumes. Not only that, but the workers were learning how to use their new tools and

machinery so that they produced more with less effort.

In 1929 the Soviet Union made less than 4 per cent of the world's manufactured goods. In 1941 it was producing more manufactured goods than any other country in the whole world except the United States.

In 1928 there were very few collective farms. By 1941 all but a very few peasants had become collective farmers.

By the same year millions of acres of land which had never produced anything but grass and weeds had been irrigated and placed under cultivation. Many hardy new varieties of grain had been developed. Among them is a wheat which can grow in the Far North. This wheat does not even have to be sown each year. It

Tractors manufactured at Kharkov. Before the war the U.S.S.R. led the world in the production of tractors.



comes up in the spring from the old roots of the plants.

The Soviets had opened new transportation routes. In 1937 they flew airplanes across the North Pole to the United States. In the meantime, their ships, equipped to operate in frozen waters, had opened up the famous Northeast Passage at last. Now their ships could steam all the way from Murmansk, near Norway, to Vladivostok in Siberia, by means of the Arctic Ocean.

They had constructed hundreds of power plants and thousands of miles of canals, highways and railroads.

Most of the people were now living better than they had ever done before. To give just one example, under the Tsar only about one fourth of all Russians could read and write. In 1941 every child in the country was in school.

But that is enough facts and figures. What they all go to show is that a new and unexpected door had been opened in that Russian wall we talked about a while back. For the first time the Government had lost interest in the conquest of land and power outside of its borders. It was engaged in opening a door into the very heart of the Russian people themselves. Peter the Great's dream of a modern, prosperous nation was beginning to come true.

The third Five-Year Plan was in its third year when the Nazi invasion occurred. Adopted in full early in 1939, though actually put into operation in 1938, this plan called for more consumers' goods, but it also



Pouring steel in the huge open hearth shop at Kuznetsk.

was geared to the international situation, the threat of war and the breakdown of peace. It called for further industrialization, for development of the chemical industry, and for greater electrification. Having in mind the danger of war, plans were included in it to continue the development of manufacturing centers in the East beyond the Urals, especially in the vital industries of coal, machine tools, iron and steel, and agriculture.

The basis for this third plan had been laid in the first and second Five-Year Plans, beginning in 1928. That was the first year when it was possible to plan Soviet development as a whole. The difficulties of the early 1920's meant slow progress at first, and it was not until after 1926 that growth to a new level could begin. The success of the first and second Five-Year Plans was so

great that in 1937 over 80 per cent of the total output of industry had been manufactured in new establishments built or entirely reconstructed during the first two plans. In the second of these plans, about 90 per cent of all tractors and harvester-combines used in agriculture were manufactured by Soviet industry, and the U.S.S.R. stood first among the nations of the world in output of tractors and combines. In its total volume of output of manufactured goods at the end of 1937, it stood ahead of Great Britain and Germany, and second only to the United States.

Aims of the Third Five-Year Plan

It became one of the principal aims of the third Five-Year Plan to work toward this goal: "To overtake and surpass the most advanced capitalist countries of Europe and also the United States" in per capita output of essential products such as coal, iron and steel. The chemical industry, which ranks with electric power in importance, was to be converted into a leading branch of manufacture. The plan, indeed, was labeled "The Five-Year Plan of Chemistry."

Manganese ore mining, closely related to production of special steels, was to be developed in the Urals and in Siberia so that it would not be necessary to ship ore long distances from the south. This was indeed a wise

provision to be adopted in 1938, since by 1941 manganese ore mines in the neighborhood of Krivoi Rog were seized by the Germans and were not regained until February 1943.

By the end of 1940, the third year of the third Five-Year Plan, many of the planned advances had been made. In those three years the national income had become much larger and the food supply greatly increased, especially in the regions less exposed to invasion. In the regions east of the Urals the total grain crop in 1940 exceeded the good year of 1913 by 88 per cent.

During this pre-war period and even after the invasion of the Ukraine, this rapid development of industry in the free and more protected regions was an important factor in the power of the Red Army to turn the tide toward victory from Stalingrad to the west. Aircraft and other factories were removed from war zones, reassembled and put into operation. Since blast furnaces and mines could not be moved, it was necessary to develop new industries in the East. New coal bases were developed. In six months during the war, the most powerful blast furnace in Europe was built at the Magnitogorsk works. Power stations in the Urals were increased in capacity, and new hydro-electric stations built.

To have prepared for victory in this war of engines and modern machines, would have been a great

achievement for a country long industrialized, but it is extraordinary that such growth could have taken place during the three Five-Year Plans, for in 1920, the output of Soviet Russia's large-scale industry had fallen to only one seventh of that of 1913, and the steel mills produced only 3 per cent of the pig iron smelted in 1913.

The collective farms, which lifted the output of both food and industrial crops, was also an indispensable factor in winning the victory. With many agricultural workers in the army, and with the rich agricultural area of the Ukraine occupied by the enemy, it was the high degree of organization of agricultural production, made possible by the collective farms, that was able to maintain both the army and the civilian population.

CHAPTER EIGHT

THE GOVERNMENT UNDER THE 1936 CONSTITUTION

BY 1936 CONDITIONS of life had changed so much that the earlier constitution no longer fitted the needs of the Soviets. There were no longer any considerable groups of people, such as kulaks, bankers, great landlords and factory owners, who wished to overthrow the Government. These had fled to other lands, been killed during the wars, been tried and sentenced by the courts, or been re-educated to the point where they accepted the Soviet system.

One half of the population were young people who had never lived under any other system (or hardly remembered the old one) and were deeply convinced that their way was the best. Millions of older people had seen in their daily life that their standard of living

was steadily rising. The educational opportunities open to everybody were a cause of joy to a people denied education in the past, and, at the same time, that education taught the people to uphold their Government. Thus some of the strict laws which had been considered necessary earlier no longer had any meaning.

So they wrote a new Constitution, based on the confidence that they had established the kind of social system they wanted—socialism—in which the means of production, including land, factories, banks and transport, are owned by the people as a whole and managed by their Government. Under this system, people are expected to work as well as they can and be paid in accordance with the value of what they produce.

According to the Constitution, every citizen over 18 years of age has the right to vote by secret ballot. The highest organ of Government is the *Supreme Soviet*, composed, like our Congress, of two houses. The Soviet of the Union is elected in proportion to the population, with one deputy for every 300,000. The Soviet of Nationalities is elected by national units, with 25 deputies from each of the 16 Union Republics, and smaller numbers from the smaller units. Jointly they elect a Presidium which carries on their work between the twice-yearly sessions. They choose a Council of Peoples Commissars to administer, or execute, the laws. There is also an elaborate court system.

One notable characteristic of the Soviet Government



The Supreme Soviet in session in the Kremlin Palace at Moscow. (Note the earphones through which the members listen to the speeches translated into their own languages.)

is the people who compose it—mostly workers and farmers.

Here you can see representatives of many national groups working together. Some of them hold earphones through which they listen to the speeches translated into their own languages. Not only are their national backgrounds striking, but also the fact that the overwhelming majority are workers and farmers rather than lawyers and professional politicians as in most other lands. The very best workers from the industries are regularly chosen to represent their region or nation in the Supreme Soviet. When its sessions are over, the deputies return to their jobs as miners, steel workers,

railroad engineers, farmers, teachers or actors. Lenin said, "Every cook must learn how to govern the state." All these deputies are responsible to the people who elected them and must report frequently on how they have carried out their duties. They get instructions from their constituents and may be recalled by them at any time. Important legislation is discussed at length by all the people before it is passed.

Besides the Supreme Soviet, there are thousands of Soviets charged with the job of governing smaller areas. Almost everyone, at some time or other, has an opportunity of taking part in Government, in addition to exercising his voting rights. Besides the Soviets established by law, many informal Soviets spring up naturally when a group of people have a problem to solve. The people get together, discuss the issues, and decide on what seems to them the best course of action.

The Communist Party is the only political party, a fact which has made many people outside the U.S.S.R. think that Soviet citizens have no right to choose their representatives. But nominations for office may be made by groups other than the Party, and this is very frequently done. A minority of the Supreme Soviet, but a majority of the members of the village Soviets, are not Party members. This does not mean that they are opposed to Communism. An overwhelming majority of them support its aims vigorously even though there are often strenuous debates about methods. But the Party

is difficult to join; people must prove their abilities and devotion, and once in, each member must work very hard without any pay to carry through the party policies. Consequently, many people do not join because they do not feel they can spend the time and energy required. Even so, it has the largest active membership of any political organization in the world.

The adoption of the new Constitution was a bright spot in the second Five-Year Plan period. There was a serious dark spot, too. The Soviets discovered that there was an organized group of traitors in their country. They had been influenced by the ideas of Leon Trotsky, once a powerful figure in the Government, who had been living in exile for many years. Trotsky and his followers had opposed many of the plans of the Government. Especially he did not believe that a socialist society could be built in Russia; he thought a major part of the rest of the world would have to become communist if communism were to continue to exist. This meant in effect that the U.S.S.R. through the Red Army or otherwise, must establish soviets in other countries. Stalin held the opposite view. He was sure that the Soviet people with their immense territory and boundless resources could build socialism in their own country. He thought the best way to get other countries to accept socialism was not by forcing it on them but by making such a success of it in Russia that the rest of the entire world would want it, too.

Trotsky was unable to get any support from the people for his side, so he turned traitor. His associates, including men of high rank in the Government, had decided that their only chance was to get outside help—especially from Germany. They had sold state secrets, conducted sabotage of mines, factories and railroads, and promised to give territory to the Axis in exchange for Axis support in seizing power. One of their number shot and killed an important official, Sergei Kirov, and this started an investigation which exposed these conspirators. They were tried and most of them were executed.

CHAPTER NINE

HOW SOVIET INDUSTRY OPERATES

SO FAR WE HAVE BEEN talking about the First Five-Year Plan, the Second and the Third, without examining the idea of State planning of industry and what it means to the Soviets. We should understand that in any society, industrial planning is necessary. There are some big questions, however, about who plans industry and for whom. In the United States, the individual owners and management have to do a great deal of planning before they can produce anything. They plan strictly in accordance with their own view of what is to the best interest of their own business (which may be very large indeed, or very small) and that means what will produce the greatest benefits or profits. In conducting their business, the prices they charge for their prod-

ucts are controlled to a large extent by other similar industries that are in competition to them. Soviet planning is different in that it covers all the industry of the entire country, so that there is no competition. However, the Soviets' aim is not to make a large profit but to provide for the people's needs.

Any organization which undertakes to plan the economy of one sixth of the world must be composed of experts. They find out what are the needs of the country and what resources are available—natural resources, factories, farms, machinery, workers. They make estimates of what every enterprise can produce, and how. They try to maintain a proper balance between the various branches of industry and agriculture.

They prepare their plans for each factory and collective farm, and send the plan to the management and the workers in it. It is discussed, criticized, debated. Changes may be demanded by any group concerned. Sometimes the workers say they can produce more or, on the other hand, perhaps that they cannot produce so much. Sometimes they say the wages are too low. Often they have other suggestions. These are all carefully considered, and the plan is changed after all the groups have discussed the matter fully. The plans are not rigid requirements; they are continually being revised and adapted to changing conditions. A continuous check is kept of how well or how badly the plans are being carried out. As another necessary part of its work,

Gosplan keeps statistics on all phases of national life, so that it can plan with full knowledge of the entire situation at any time.

Aims of Planning

One advantage of central planning for the whole of the U.S.S.R. is that it is possible to keep clearly in mind what the goals or aims are. Everything that the planners, the management, and the workers do is directed so that it will meet a definite, clearly understood need of the whole country. We will do well, then, to understand what the aims of industrialization have been, and to what extent they have been attained.

First, to increase the wealth of the U.S.S.R. and its peoples.

We have seen that the emphasis first had to be placed on heavy industry. Even so, there were increases of 50 per cent or more in most consumers' goods, like shoes and clothing, during the years of the plans. As a whole, industry increased 12 times over the last pre-war year, 1913. One extremely important development was in housing. Industrialization meant that many new factories were built in or near important cities, and hundreds of thousands of people moved to the cities to work in these factories. They had to have homes or apartments in which to live. As there were not nearly enough places for them, an immense housing develop-

ment was begun. Cities were carefully planned. Estimates of the expected population and surveys of the housing were made. Much had to be torn down, for the buildings of old Russia, except the homes of the nobility and the rich, were very bad, without sanitation or running water. Furthermore, the city planners insisted that one third to one half of the area of cities must be open to light and air. Boulevards were widened and green parks replaced slum areas. The new apartment buildings were, to foreign observers, one of the most impressive signs of the changes which had come over Russia. Yet, although housing space doubled from 1923 to 1941, it could not catch up with the growth of the cities, and many workers' homes were crowded and inadequate.

Second, industrialization aimed to advance the peo-

A street in the workers' settlement of the Molotov Automobile Works at Gorki. Here is a fine example of modern city planning.



ples of the former colonial areas in the East to a point where they were the equal of the Russians in actual wealth as well as equal citizens in the U.S.S.R. This meant that a much larger proportion of capital had to be invested in Central Asia and Siberia than in European Russia. New clothing factories began to spring up in regions where previously all cloth had been woven by hand. Railroads and airplanes began to appear in places where people had traveled only by ox-cart.

Third, industrialization aimed to make the U.S.S.R. able to live independently of foreign lands by producing at least some of every kind of product needed. The Soviets did not want to get along without foreign trade, but they realized it might be necessary.

Fourth, it was to make the U.S.S.R. so strong that it could resist any enemy. This required a great growth of production. But within the short space of 10 years, the Soviets succeeded in bringing their country up to second place in the world, with only the United States surpassing them. It required, too, that industry be no longer concentrated in the West, but that the rich resources of the East be developed as much as possible.

When war came, the process of industrializing the East was hastened. Many plants were entirely uprooted from the Ukraine, White Russia and Western Russia, and moved far into Siberia.

Last, in order for the program of collective farms to be a success, a great deal of farm machinery—tractors,

harvestors, cultivators—had to be provided. And they were.

How the Workers Are Paid

It is clear that an industrial undertaking as vast as this requires a great number of workers and a highly skilled management. There are about 30 million workers in the U.S.S.R. or about the same as we find in the United States. Nearly half of the workers in the U.S.S.R. are women. Four out of every five workers belong to trade unions. These unions provide old age and health insurance; they check on working conditions and safety; and provide recreation, health services and educational opportunities. The trade unions are especially interested in improving the skill of their members, which is one of the biggest of all the problems of Soviet industry. The worker has a direct stake in developing his skills, not only because this helps his country, but also because as he produces more, he receives more pay. Workers are paid in accordance with how much they produce. The slogan they use is: "from each according to his ability; to each according to his work," and they consider this an essential characteristic of the period they are now in—the period of *Socialism*. Later, when they have further developed, they expect to enter the period of *Communism* when the slogan will be "from each according to his ability; to each according to his need."

But of course they cannot enter this period until they can produce enough so that everyone can have everything he needs. It will be a long time before they can do this.

Management of industry presents problems rather different from those we have in America, because the Government, not private individuals or corporations, owns all industry. These are managed largely by trusts which are public corporations under the direction of government departments called *Commissariats*. When an industry is just beginning, the Government does not expect it to cover its expenses, but, with a few exceptions which are planned to run at a loss, every factory is expected to make a profit once it is well established and running.

Money and Banks

The money and banking situation in the U.S.S.R. is quite different from our own. Unlike most other countries, the Soviet Union has no privately owned banks. One of the earliest measures of the Soviet Government was the decree (issued on December 13, 1917) nationalizing banking. Thus, practically since the establishment of the Soviet regime, banking and finance have been a public monopoly, the banking system being fully owned and operated by the state.

Prices in the U.S.S.R. are the result of planned costs

of production plus a "profit" and a turnover tax which goes into the Government's fund. Some goods that are needed by the people are sold below cost of production, making up the "loss" from the general fund. Some goods may be sold at cost, when they could easily yield a "profit." Still other goods, such as perfumes or other luxury items, may be sold far above cost, thus yielding quite a large profit into the general fund.

As elsewhere, money is the medium of exchange—goods and services are bought and sold. As elsewhere, money is used, together with a greater variety of different precious metals than in most countries, for purposes of bank reserves. But when one considers money as a standard of value, here a difference arises. Values are formed in the process of planned production. Soviet money can be used only for buying goods and services within the U.S.S.R. so that it has no value outside that nation.

Foreign Trade

Finally, since April 1918, that is, since the early months of the Soviet regime, foreign trade has been a government monopoly. Only the Government can import goods into the U.S.S.R. or export goods to foreign countries. There are no foreign investments in the U.S.S.R. The inflow and outflow of goods is planned and goes through one agency. There is no problem of

adjusting prices to those of other countries. The financial dealings with foreign countries are only those connected with trade; they are a means that are allowed to serve a purpose but not to influence or determine the policies of the U.S.S.R.

The Stakhanovites

The story of Alexei Stakhanov is an especially dramatic illustration of the drive to work better and produce more. Stakhanov was a child of very poor peasants. He was born 11 years before the revolution. He went to work at the age of 12 for a rich peasant, getting no wages but only his food and shelter. In 1927 Stakhanov went to work in a coal mine in the Donets basin. He could see that his country had greatly to increase production if the Soviet people were to achieve their goals. He wanted to help. He was a good worker—strong and intelligent and eager to find out the best ways of working. In mining the coal, he had a pneumatic drill which used compressed air to do the heaviest part of the job. In operating it, strength was not so important as knowing just how to handle the tool. Stakhanov felt he had to know everything about the drill—yet he could not even read or write! But he began to study so that he might learn to master the pneumatic drill.

Stakhanov wanted to find a way to do more work with the machine. The first thing he noticed was that

the space in which the men worked was too narrow so that they could mine only a few tons of coal during a shift. The second thing he noticed was that each miner had to do the drilling of the coal, and after that spend several hours propping up the roof with timbers, thus the pneumatic drills were being used only a small part of the time. Stakhanov suggested that each driller have a wider space in which to work, and that he be assisted by a group of proppers so that he would do nothing but drill. His proposal was accepted. On his first trial he mined 102 tons of coal in five hours. This was nearly 50 times as much coal as the men had previously mined during the same period. Later he raised this record to 227 tons in one shift. Nor was this the end, for all over the country miners began to use Stakhanov's method,

Here we see the famous Russian coal miner, Alexei Stakhanov, showing one of his helpers how to operate a pneumatic drill.



and one of them, named Baranov, with his brigade of proppers, actually reached the astonishing total of 1581 tons in one day!

The Stakhanovite Movement Spreads

Then the railroad men began to adopt the system. Now that the miners were producing more coal, they had to find a way to haul the larger amounts of coal from the mines. It was not long before they found that they, too, could increase the number of carloads in a six hour shift from 15 to 40, and later to 175. The movement was taken up enthusiastically all over the U.S.S.R. In automobile plants, in the building industry, in textile mills, and on the farms, men and women workers began to try out new methods to improve their production. They called themselves "Stakhanovites" in honor of the originator of the idea.

Because this large increase in production on a piece-work basis by individual workers might result in unemployment of others, lowering of wages and harm to the workers' health, the Soviets took good care that none of these things should happen. There was no danger of unemployment because the need of goods was so enormous. Instead of lowering wages, the Stakhanovite movement increased them since each worker was paid in accordance with what he produced. Furthermore,

it was the responsibility of every Stakhanovite to teach the improved methods of work to his fellows so that they, too, could share the rewards of higher pay and the pride of achievement. Third, the movement did not call for harder work but for more intelligent use of tools, so that the tools did the harder work, not the workers.

"We Challenge!"

Another especially exciting way of increasing production is so characteristic of Soviet life that you would see evidences of it wherever you go in the Soviet Union. In the biggest factories, such as the Molotov Auto Plant at Gorki, or in the smallest collective farm in the remote north, or in a Ukrainian mine, or a school beside an irrigation canal in the deserts of Central Asia, you would see handsome posters proclaiming in bold letters, "*We challenge . . .*" and then would follow the factories, farms, mines, or schools challenged and the terms of the challenge. It might be to produce more cars, to mine more coal, to abolish industrial accidents, to improve the quality of work in school classrooms.

Here is an example of how the system works: In a tool-making plant, the ball bearing workers gather to hear a speech by one of the outstanding leaders, such as Stalin or Molotov, on the urgency of producing more and more. Right after the speech the shop chairmen, elected by the union members of each department of

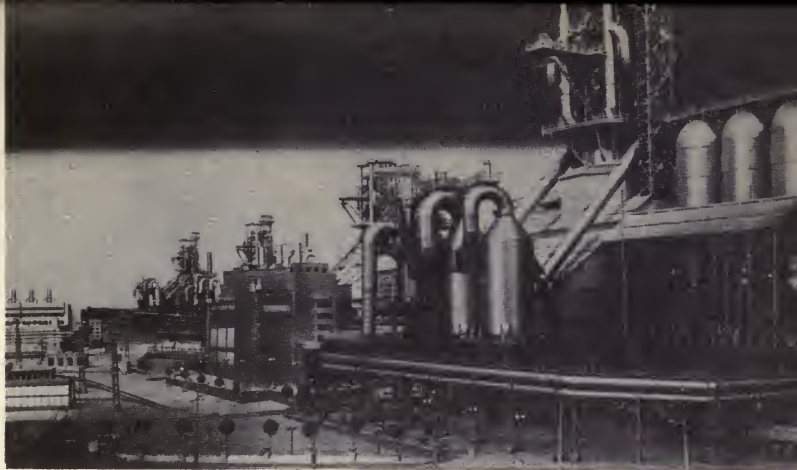
the factory, get together to figure out how the plans, which have been outlined for industry as a whole, apply to their own plant and department. They go all over their work, trying to find places where they can overcome bottlenecks, use machines more efficiently, reorganize their work. Finally they work out a plan to produce one third more ball bearings.

Some one suggests, "Let's challenge the other departments to increase their production by one third, too. The workers agree, the terms and time limit worked out and the challenge issued. Soon everybody in the factory is talking about the competition. Of course the challenge is accepted, and another department may, in turn, propose a 40 per cent increase rather than one third. Lunch hours are spent discussing how to reach the goals set; classes are organized after work; everybody tries to figure out his own way of speeding and improving his work. A committee inspects the departments to see how the work is progressing and discovers that it is going very well indeed. Then the entire factory may decide to send a challenge to a similar factory a thousand miles away. Stories are printed in newspapers. On the wall newspapers, which are to be found in every Soviet factory, appear the daily results. Finally the day set for the end of the competition arrives. The committee of inspectors decides which factory has won, and the Government presents a banner to the winner at a ceremony including speeches and a dance.

The same kind of "socialist competition" is adapted to collective farms. Here the challenge may be to increase the amount of the crops, to improve the quality and number of cattle or to get the harvest completed by a certain date. Here, too, interest and excitement are at top pitch, and the ceremonies upon the finishing of the contest are gay celebrations.

Why do Soviet workers enjoy challenging others so much, with all the extra work and planning it requires? For one thing, they feel that they themselves own the farms and factories, so that they are working for themselves. This is made very real to them by the larger pay checks they get. For another, they have long known that the danger of their country's being invaded was very close, and that if they did not complete industrialization, they might have no country at all.

Certainly the fine results of this method were seen during the war. The munitions of the Red Army depend on the workers; the food supply depends on the farms. Without a vast number of workers putting everything they have into production, the Red Army could never have fought so well. Indeed, when at the height of the German advance six republics and parts of two others, including many of the largest industrial centers, were captured by the enemy, the Germans found that the factories were not there. Soviet workers had taken them to pieces, loaded them on trains, traveled with them to the Urals or even farther, challenged one another to do



A model of the enormous steel mill erected at Magnitogorsk.

the reassembling in the fastest possible time, and then cut that time in some cases to one quarter of what it would usually have taken to rebuild these factories.

In wartime, the need of winning the war must take first place, and civilians in the U.S.S.R. have had to do without many things that would have been available in peacetime. For example, it has been very difficult to buy clothing or household articles, but a careful rationing system has made it possible for everybody to get at least the minimum necessities, and everyone has had enough to eat. Nearly all the stores throughout the U.S.S.R. are owned by the Government and the price of each article is controlled, but there are also consumers' cooperatives in the country, and the collective farmers may bring their surplus produce to the towns for sale. In these last, the prices are not fixed by the Government and, during wartime, are very high indeed.

After the war the Soviet people expect to increase greatly their welfare and prosperity. The workers are now earning good pay and much of it is being saved to be spent in the post-war period. They have the natural resources and the will to advance.

CHAPTER TEN

EDUCATION AND THE ARTS

WHEN THE SOVIETS CAME into power, they had to face the fact that their people needed education almost more than anything else. Without this they could not create a strong and prosperous society. They tackled the problem of teaching their people to read and write very early in their rule, and, by 1939, had largely succeeded. But mere ability to read and write is not enough.

So a very elaborate educational system had to be built. Children up to $3\frac{1}{2}$ may be taken by their working mothers to *crèches*, or nursery schools. The mothers get time off from their jobs to feed their babies. The children go home with their parents when the work day is over. Meanwhile they are taken care of by doctors and nurses who give them plenty of rest and fresh air.

The young tots next attend kindergartens, which are much like the better ones in America. Since most mothers prefer to take care of their children themselves rather than to work when children are of this age, the majority of the children throughout the U.S.S.R. do not attend kindergarten.

When they are 7 years old, however, they all must go to school. It is the goal of Soviet education to provide a course of general education for every young person until the age of 18. Students after 7 years of elementary school may go to the various vocational schools which train technical workers for industry, or they may continue in the 10-year school until they have completed it.

Higher Education

The next step in the educational ladder is the university or the higher institutes. There students prepare for one of the professions. Because they are regarded as performing a valuable public service, they are paid to study, providing they get good marks, as many of them do. Before the war there were about 700,000 students in the Soviet institutions of higher learning. This is more students than could be found in all the other similar institutions throughout the rest of Europe.

The war has made many changes in Soviet education but we do not know how many of these will be per-



Students taking notes at a lecture at the Moscow University.

manent. We do know, however, that education there is constantly changing, so that we can expect many new developments.

The radio, theater, movies, museums, newspapers, factory schools and correspondence courses also play their part in educating the people. In addition, there are the palaces and parks of culture and rest (often called "parks of culture and no rest", because everyone is so active in them) and the similar Palaces of Pioneers. We may take as an example the *Leningrad Palace of Pioneers*. Formerly the palace of an empress, the whole building and its surrounding park has been turned over to children, who pay a few cents (kopeks) to enter. Sometimes they get free tickets through their school.

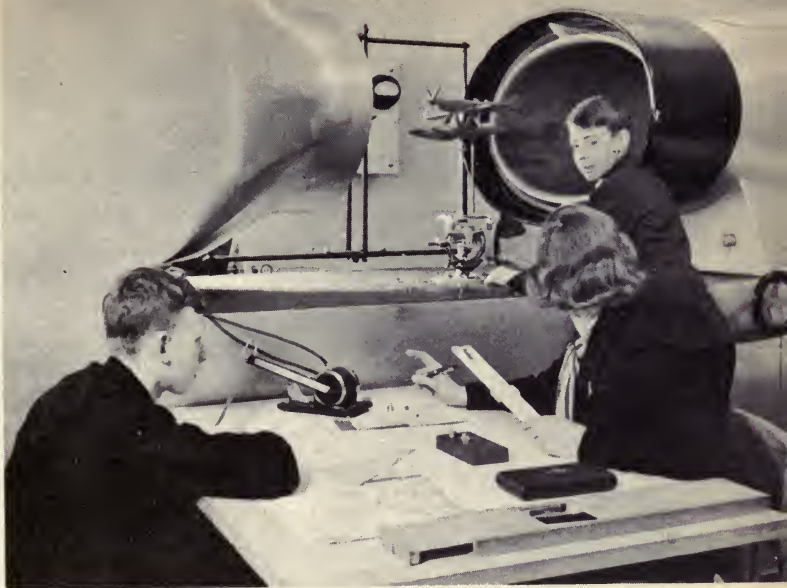
Like education, health protection is regarded as the responsibility of the State and is provided free to all through clinics in factories and districts. In some cases ambulance airplanes may be used in emergencies to reach far distant places and bring the patients to a city hospital.

Closely related to public health is social insurance, provided free to all. The trade unions take care of the funds, which come partly from the Government and partly from the employer factory. For collective farmers, mutual benefit societies do the same job of distributing the money, which is paid by the collectives. There is no unemployment insurance, because nobody is unemployed.

Culture means something rather different in the Soviet Union from what it means to most of us. In the U.S.S.R. culture is the whole way of life, not only the arts. For example, it is considered very uncultured to drop waste paper in the magnificent Moscow subway.

Leningrad Palace of Young Pioneers, formerly Anichkov Palace.





Young students testing a model of a hydroplane in one of the laboratories in the Leningrad Palace of Pioneers. In addition to the mechanical laboratories, the building and grounds also provide for artistic development and recreation.

At the time when the country needed to increase its production of pigs, it was considered cultured to raise a pig. But certainly the arts are a very important part of culture, as is shown by the billions of rubles which the Government spends on them. Soviet music and the fine work being done in the theater, the opera and the ballet are known throughout the world. Outstanding artists are often elected as deputies to the Supreme Soviet and have received such titles as *Honored Artist of the Republic*.

Every attempt is made to develop the artistic talents

of people in the smaller communities. The dances, styles of ornament, languages, folk tales, poems and handicrafts of the non-Russian nationalities are encouraged. Every year they used to hold in Moscow a ten-day festival in honor of one of the nationalities. Operas, plays, dances, music and the poetry of that nationality were featured.

The war has had a deep effect on the arts, as it has had on everything else. Dramatists write plays about Soviet heroism; artists turn to painting war posters; Shostakovich, one of the great Soviet composers, writes his 7th Symphony to honor Leningrad and its people who withstood the German siege. Architects work on fortifications, and painters on camouflage. And even in

Folk dances and handicrafts are encouraged in the U.S.S.R. Here we see a Russian folk dance being performed by workers from a rubber factory in Yaroslavl.



the heat of battle, city planners work out the rebuilding of shattered cities so that they will be more beautiful, healthier and better arranged than ever before.

Newspapers have had a remarkable development. Most Americans, seeing them for the first time, think them very dull because they are so different from our papers. They have no stories of murder and kidnapping—no crime news at all unless the crime is one against the State. There are very few advertisements. Pictures are used, but not many. Even what we consider news stories are not numerous. Instead, the Soviet newspapers are devoted mainly to government decrees and editorials. Yet more than 37 million Soviet newspapers (in 69 languages) are printed and sold every day. Very often people have to stand in line to buy a copy, and the newsdealers frequently run out of copies. Clearly the Soviet people do not find them dull. The decrees they consider the latest decisions of *their* Government, which will have a big effect on *their* lives. The editorials are the guiding principles of their lives. Furthermore, much of the paper consists of workers' letters sent in by people who want to use the newspapers to complain about one or another short-coming, especially those of the Government. These complaints are carefully checked to make sure action is taken to correct the error.

Magazines have an important role, too, and books are published at an almost unbelievable rate—700 million every year. Many of these are short books and

pamphlets so that they can be sold quite cheaply.

Everything that is published is examined by the censor and if in his opinion the material presented would aid the enemies of the Soviets or stir up national or religious hatreds, he forbids its publication.

An immense library system, including 20,000 libraries which travel the countryside in automobiles, supplies the people with further reading material.

Radio is very important to the Russians. Like almost everything else, it is planned by the Government. Apartments, clubs, collective farms, factories and schools have loud-speakers which broadcast the programs of news, concerts, drama, setting-up exercises, educational and political speeches to the listeners. Formerly there were many privately-owned radio sets, but these were called in by the Government when war started.

CHAPTER ELEVEN

MOSCOW—CAPITAL OF THE U.S.S.R.

THERE ARE SEVERAL WAYS of getting acquainted with the Soviets. Probably the best way is to visit the Soviet Union, learn a bit of Russian, travel with the people in 3rd Class railroad coaches, spend several months wandering into out-of-the-way parts of the country, and then come back and do the same thing again several years later. In that way one learns the following things: that the Russian people are as cheerful and friendly as residents of our own West. That black bread and cucumbers and borscht, or beet soup, with a little meat or fish, can be delicious. That many new factories have appeared between the first visit and the second. That people who used to wrap their feet in old sacks, now wear shoes. That a really beautiful subway, with fast

escalators and marble-walled stations, has been built under the cobble-stoned streets of Moscow. That modern apartment buildings have been constructed by the thousands. And that schools, colleges, theaters and opera houses have sprung up like mushrooms.

If we cannot make a personal trip to the U.S.S.R., the next best thing is to see it through the eyes of the Russian people themselves. Men and women of that nation still remember the old days when Cossacks galloped through the streets, beating the people back with their steel-tipped whips, or knouts, so that the Tsar's carriage could pass by. They recall the terrors of the Civil War and the famines that followed it. And they see their country, not as finished and perfect, but as something new and splendid which is still in the process of being born. "Yes," they will admit, "things are pretty rough yet. But just wait! Wait till we finish a few more Plans and you'll really see something. We've hardly started yet."

We shall travel, unobserved, with *Tovarishch* Ivan Stefanovich Borodin and his son, Mischa Ivanovich, as they make a quick tour of inspection through the U.S.S.R. just before the Russians were attacked by Germany in 1941.

First, we should have a word of explanation about those jaw-breaking names. *Tovarishch* means "Comrade" and is used in addressing a Government official, a fellow member of the Communist Party or a dear friend.

(Strangers usually address each other as *Grazhdanin* or "Citizen.")

Ivan is a very popular name. It is so much used that many persons jokingly refer to the Soviet Union as "Uncle Ivan."

Stefanovich means Stevenson, or "the son of Stephen." It shows that Ivan's father was named Stefan. And Ivan's little daughter is Katia Ivanovna, or Katia, the daughter of Ivan. In friendly conversation the surname of Borodin is seldom used, except in referring to the family as a whole.

Who is Tovarishch Ivan Stefanovich Borodin and what does he look like? He is an employee of the State Planning Commission, or Gosplan. He spends much of his time traveling about his country, talking with workers, plant managers and collective farmers in order to find out how the Third Five-Year Plan is progressing. Ivan is tall and lean, smooth-shaven, with close-clipped brown hair. He wears a well-tailored suit and looks very much like an American or an Englishman.

Mischa is thirteen and tall for his age. He, too, has close-clipped brown hair. And there is a merry twinkle in his blue eyes. Except for the fact that he often wears an embroidered blouse instead of a shirt, and never tucks the bottom of the blouse under his belt, he looks just about the way thirteen-year-old boys look the world over.

You may wonder why Mischa is going on a tour of



Young Pioneers out for a hike in the U.S.S.R.

the country with his father, instead of attending school. This is the reason: Mischa is a member of the Pioneers. And that's about the same as being a Boy Scout in America. In fact, the slogan of the Pioneers is "Always Prepared," just like that of the Scouts. They go on hikes and have summer camps. They are taught to be alert and courteous. And they are always looking for ways to help others and to improve the lives of people in general.

In the summer vacation of 1940 Mischa went to a camp near the Ural Mountains. One day, while on a hike with his troop, he happened to notice a ledge of reddish rock sticking out of a hillside. Curious about what the stuff might be, Mischa and his friends chipped off several chunks of the rock and sent them to a Moscow research institute for examination by scientists.

Imagine his surprise when *Pravda* and *Izvestia*, the two big Moscow newspapers, got terribly excited about the discovery. The reddish rock had turned out to be iron ore. Soon a party of scientists went to the place where the ore had been found. They reported that they had drilled holes all over the region and had found rich veins of iron under the ground.

Immediately Mischa became a hero. He was given a medal by the Pioneers. Some days afterward a government official called on the Borodins and informed them that their son could ask for anything he wanted—within reason, of course—and it would be given to him.

Well, Mischa thought about that new bicycle he had been dreaming of. And then he thought about this, and that, and the other thing. But he finally realized that the one thing that he really wanted was to go along when his father made his next inspection trip. Since he had made good marks in school, his teachers said he could be released from classes if he promised to study during his travels. And so it was arranged.

We are going to make the acquaintance of the Borodins while they are having supper at their new apartment in the northern suburbs of Moscow. First we take a street car. For a while we cling to the back steps of the car because we cannot wedge through the crowd inside. Finally we squeeze our way to the front just before it is time for us to get off.

By this hour it is quite dark, although it still is early.

This is because Moscow is situated about as far north as Sitka, Alaska. This being the month of April, night falls about 5 P.M.

We walk along a broad street, lined with brightly-lighted textile factories where the night shift has just gone to work. After a while we come to a row of apartment buildings. In Moscow, dwellings are built near to the factory districts so that the workers will not have far to travel to and from their jobs.

The Borodins at Home

The apartment we are seeking is a big, modern structure. Every window is lighted. But when we go inside, we find that the halls have not been completed and

One of the main streets in Moscow.



the elevator has not been installed. We will have to walk up five flights of stairs to get to our destination. The reason for this is that in Moscow, apartments are occupied almost as soon as the windows are put in. Since the revolution, the city has increased from a population of 1 million to that of 4 million . . . about the size of Chicago. The result is that, no matter how many new apartments are built each year, there is always a long waiting list of families wanting to occupy them.

The Borodins are proud of their new home, elevator or no elevator. For years they had been living in the busy center of Moscow, crowded into a dark, one-room flat in a tumbled-down building almost a century old. Now they have a small living room with big windows overlooking a park, two bedrooms and a kitchen. And, wonder of wonders, the kitchen has a gas stove and one of the few electric refrigerators in all Moscow. The place rents for only 4 per cent of Ivan Borodin's moderate salary. As Grandma Borodin would say: "*Ochen khorosho!* Very good indeed! It's practically a palace for a family of five."

Gathered at a big round table in the center of the living room are Grandma, a little, white-haired woman of sixty-five; Ivan Borodin, who now wears an embroidered blouse like that of his son; Klavdia, his plump, rosy-cheeked wife, who has put on a fresh gingham dress to celebrate the big occasion; eight-year-old Katia

Ivanovna and, last but not least, Mischa himself, bursting with pride.

The table is covered with a spotless white linen cloth. In the center steams a huge copper samovar. This samovar is a curious Russian device for making hot water for tea. It consists of a sort of pot or vase in the center of which is a hollow cylinder filled with burning charcoal. The Borodin samovar has been in the family for generations. It couldn't be purchased for any amount of money. A Russian, so the saying goes, doesn't sell his samovar until he has starved for three months!

But the Borodins aren't starving. Far from it! They have just had a good meal of boiled chicken, potatoes and gravy, with cranberry *kissel*, a sort of fruit soup, for dessert. Now they all—including Katia—sit there sipping scalding hot tea out of glass tumblers. Don't ever try this unless you know how. The only way to keep from getting burned is to hold the glass by putting your thumb on the top and your little finger under the bottom. The Borodins don't use cream or lemon, both of which are hard to find in Moscow. Instead, they sweeten their tea by putting spoonfuls of strawberry preserves, or *varenie*, into it.

"Well, Mischa," says his father, after the tea is all gone, "how shall we celebrate our last night in Moscow?"

"Movies," screams Katia promptly.

"The Children's Theater . . ." suggests Mrs. Borodin.



Dinner-time in a Russian village. (In the center of the table note the samovar, used for heating water for tea.)

"I suppose Mischa wants to go to the Park of Culture and Rest again so he can make the parachute jump," smiles Papa Borodin.

"Nuh uh," answers the boy. (Although it is not polite in either country, Russian children say "Nuh uh" just as we do in America.) "Nuh uh, I'm tired of that dinky little old parachute. You jump only about four stories. Tell you what," and he winked at Grandma. "How about going to the ballet? Ulanova is dancing in 'Swan Lake' at the Ballet Theater tonight."

"You, too, Mischa!" Ivan pretended to groan. "Why everybody in the country wants to go to see people prance around on their toes, I can't understand. But they do, even the youngsters. All right. I know Grandma would rather see the movies with Katia. The rest of us will go to the ballet."

There is a great scramble for overcoats, hats, caps, mittens and galoshes, and soon Mischa and his parents are on their way. They stand in a long, patient line of passengers until a street car bumps its way down the snow-covered street, and, as usual, just manage to squeeze themselves aboard.

Moscow

The car finally passes out of the suburbs and turns down Balchug Street. They pass the New Moscow Hotel, which is really the *old* Moscow Hotel, despite its name. On a fine new bridge they cross the muddy Moscow River, and Mischa catches a glimpse of one of the fast, streamlined passenger boats which skim along this waterway at all hours, enroute to such far places as Kazan and Stalingrad on the Volga River.

Next they clang by St. Basil's Cathedral, one of the strangest-looking churches in all the world. It has nine, onion-shaped domes of different colors and designs. In front of it still stands the white circular stone platform on which enemies of the Tsar used to be beheaded.

In front of them spreads the vast expanse of Red Square. This is the largest square of any city in the world. It is big enough to be used as a parade ground for a small army. And indeed it is used as a parade ground on May 1st of every year when a tremendous



St. Basil's Cathedral, with its fantastic domes, is seen in the background. Ivan the Terrible began to build it in 1555 to celebrate the conquest of Kazan. In the right foreground is the simple but impressive tomb of Lenin which is visited each year by millions of men and women from all over the U.S.S.R. (Note the long line of people waiting to enter.) This is Red Square. The Kremlin may be seen at the extreme right.

celebration is held there and great crowds gather.

To the left of the car can be seen the high walls of the Kremlin. In the old, old days, before the time of Peter the Great, the Kremlin was the home of the Tsars. Now it is the seat of the Soviet Government. Inside those closely-guarded walls are cathedrals, palaces, armories and ancient dungeons. Just outside stands the tomb of Nikolai Lenin, leader of the 1917 revolution. This is an impressive, simple pyramid made of red and

black granite. Each year hundreds of thousands of Russians come there to pay tribute to their dead leader.

To the right of the car, across from the Kremlin, is a huge block of office buildings which a few years ago were moved back several hundred feet, all in one piece, so that the square could be made larger. Ahead is Gorki Street, the Main Street of Moscow, with its department stores, hotels—including the fine Moscow Hotel, which is really the *new* Moscow Hotel . . . motion picture houses, museums and many of the theaters of the city.

The street is brilliantly lighted. When the Borodins

This vast Moscow Hotel was built recently as part of the Ten-Year Plan for the re-building of the city.



get off at their destination, they become part of a crowd as thick as a Times Square crowd in New York City. The people are not as well dressed as New Yorkers are, even though they are wearing their very best clothes, but they are just as gay and carefree and just as bent on having a good time.

Although the spring night is quite cold, pushcart vendors are selling great quantities of *morozhenoe*, or ice cream, and—believe it or not, but it is true—an equal number of good old-fashioned Eskimo Pies!

The Russian Ballet

The handsome Bolshoi Theater is jammed to the doors with dance-lovers of all ages. These watch Ulanova, the beautiful first ballerina, with *ohs* and *ahs* of admiration. When she does a difficult step they clap their hands, cheer and even stamp their feet with enthusiasm.

During the intermission, all the spectators leave their seats and walk round and round the huge lobby. There they smoke odd-looking cigarettes which have hollow tips almost two inches long. They also greet friends, sip soft drinks, eat sandwiches and discuss the performance.

After the show ends, with a great ovation for the performers, the Borodins stop for more tea and little



The Russian ballet is famous throughout the world. The Russians regard the ballet as a supreme expression of their culture.

cakes at a place which looks much like a soda fountain but which does not serve sodas. Then they decide to go part way home on the subway. Although it is after 11 o'clock, the streets are still crowded and people are pouring into the square marble station which has a big electric sign reading *METPO* on its top. The sign really spells METRO, which is the name of the subway, but the fact that the Russian letter "P" is our letter "R" makes the sign look quite queer to us—but not to Mischa, of course.

The Borodins have to jump to get onto the escalator, or moving stairway, which takes them down to the tracks, for it goes downward at a fast rate. At the bot-

tom they find themselves on a spotlessly clean platform under a curved roof of marble supported by square columns, also of marble.

Cleanliness in the Subway

By accident Mischa drops the wrapping of an Eskimo Pie. Instantly a youngster about his own age stoops down, picks it up and hands the paper back to him.

"Excuse me, Grazhdanin," says the stranger with a friendly smile. "You should put this in the wastebasket over there. We must keep our subway clean. It belongs to us."

Blushing with embarrassment, Mischa does so. Then he and his parents enter a car of the long, steel train

The beautiful Moscow subway carries more than a million passengers daily.



which has drawn up to the platform. We will let them go home alone for, after all, it is time that all good people should be in bed.

CHAPTER TWELVE

NORTHERN RUSSIA AND LENINGRAD—OLD CAPITAL OF THE TSARS

IVAN AND MISCHA were so sleepy that they could hardly keep their eyes open when they arrived at the Moscow airport next morning to start the first leg of their long inspection trip. Although a cold, gray dawn was just breaking, the landing field already was humming with activity. This was due to the fact that much of the Soviet Union's traveling is done by air. There are still far too few railroads to carry the traffic and, until May, most northern highways are blocked by snowdrifts.

Because of this situation, a network of air transport and passenger lines has been built in recent years. It reaches every important city and even extends to small towns close to the Arctic Circle where the only other means of travel is by dog sled over the frozen snow.



Map of the U.S.S.R. in Europe in 1941, showing the route taken by the Borodins during their trips described in Chapters 12 to 15.

As the Borodins were presenting their tickets to heavily armed guards at the entrance to the field, they saw big transport planes taking off for distant points in Siberia, Central Asia and the Caucasus. The ticket agent even pointed out one plane that was bound for China.

Finally it came their turn to board a plane. The one they found waiting was not a shiny, twenty-passenger plane. The place where they were going first—*Archangel*, a port on the White Sea just below the Arctic Circle—has few visitors until summertime. Therefore, their ship was a little cabin plane with room for only five persons. Their pilot, a short, stocky fellow with black hair and snapping black eyes under his leather helmet, met them with a wide grin and told them they were to be the only passengers. A few moments later he took the ship off with a roar. Almost immediately they were outside of Moscow and flying only a few hundred feet above dense forests which covered most of the countryside. Mischa forgot all about being sleepy as the plane bounced about like a boat in a rough sea. The pilot explained that he was flying low to keep ice from forming on the wings, but the uncomfortable passengers were sure he did so because he liked it.

For hours they flew over flat, heavily wooded, rolling plains. The forest was broken here and there by meadows, small lakes and even smaller towns whose log huts lay buried deep in snow.

"This is fine lumber country," explained Mr. Borodin to his son. "Also there is a great déál of peat and some low-grade coal. The last time I came this way I checked up on a new project for mining peat. Formerly workers had to dig the 'brown coal,' as it is called, out of the bogs with spades. Now we wash the peat loose with hoses carrying a stream of water under pressure. Then the water is squeezed out and the dry peat is shipped to Moscow where they burn it to furnish power to turn the big electric generators. Later on, we are going to build electric plants right in this wilderness where they will be much more efficient, and send the power to Moscow by wire.

"Plenty of fish in those lakes, too. We ought to come here on a fishing and hunting trip some day. I think we might get a bear."

Ivan smiled as he noticed that his son was much more interested in hunting for bear than in the manufacture of peat.

Archangel

The short arctic day was almost over by the time they reached Archangel. They were met at the airport by members of the Soviet, or city council, and escorted to a hotel where they were to spend the night. Mischa was amazed to see that all, or almost all of the buildings



A family orchestra in the Ukraine. The lady at the right is holding a balalaika; the daughter next to her is holding a second balalaika—popular musical instruments in Russia.

were constructed of thick logs. Nor had any effort been made to remove the snow from the streets. Instead it had merely been leveled off and rolled solid with heavy rollers. By now it was so thick that to enter the hotel they had to walk down several steps of frozen snow.

That night they were entertained at the clubhouse of the lumberjacks' union. This was a big hall where it seemed that a large part of Archangel's population had gathered. The lumberjacks, big strapping fellows, danced the old Russian folk dances to the music of accordions and long-necked banjo-like instruments, called *balalaikas*.

Mischa listened for a while to his father talking to the head of the lumbermen's union. As well as Mischa

could understand, this man was not satisfied with the way things were going in Archangel.

“*Ochen plokho*. Very bad,” he kept grumbling. “You folks down in Moscow seem to have forgotten us up here. I need 20 tractors and some of those power-driven saws that cut down trees before you can say ‘Ivan Ivanovich.’ Have you people forgotten that Archangel used to be the only seaport which Russia had?”

“No, we haven’t,” smiled Borodin. “But we also have not forgotten that Archangel harbor is frozen solid much of the year . . . six months of the year, to be exact. We will do what we can for you, but these days most of our new machines are going to Murmansk. The Murmansk harbor never freezes so that it is going to be our big arctic port before many years.”

At this point in the conversation, Mischa’s head nodded in spite of himself. Soon he was fast asleep. He hardly remembered being awakened enough to go to the hotel and be put to bed.

Early the next morning their little plane was humming north-westward across the ice-filled White Sea. Although it was the month of April, winter still held the Arctic in a firm grip. The cabin was so cold that pilot and passengers wore their heaviest sheepskin coats. From time to time they drank glasses of tea from a thermos bottle they had brought, but still they shivered.

As they approached Murmansk, however, the weath-

er grew somewhat warmer and a faint mist covered the forest over which they now were flying. Finally they caught sight of the blue waters of the Arctic Ocean sparkling on their right.

"Why is it getting warmer although we are flying north?" Mischa asked his father.

"It is because of the Gulf Stream," was the answer. "That great current of warm water comes up from the Gulf of Mexico, swings east around the coast of Norway and keeps the sea free of ice all the year round. That is why Murmansk has become so very important to us. If our enemies attack and close the Baltic Sea to blockade Leningrad, Murmansk will be our open door to the Atlantic."

When they landed at the new and modern airport, they were met by the President of the local Soviet—or the Mayor of Murmansk, as he would be called in America. The President was bubbling over with enthusiasm about the way things were going in his town.

"We will have finished the Third Five-Year Plan by July, Tovarishch," he assured Ivan. "Look at those new docks and warehouses. They are rough and mostly made of logs, it is true. But now the biggest ocean steamers can dock here and load and unload cargo as fast as they do anywhere else in the Soviet Union. Not only that, but our railroads to Leningrad and Moscow have been rebuilt and supplied with the best locomotives and freight cars. If an emergency arises, our Gov-

ernment can depend upon this city and the surrounding countryside to do their part."

They spent a breathless day going over the new building work. Everywhere they found groups of men and women toiling as if their very lives depended upon it. The citizens of Murmansk vividly remembered the last war when they were so weak that a British Expeditionary Force had been sent there to keep order. This time they were determined that they would be in a position to manage their own affairs. Frequently the Borodins saw hundreds of workers taking part in military drills.

The plane which took them to Leningrad the next day was much larger than the one which had brought them into the Arctic and was filled with passengers. They talked and laughed endlessly, but Mischa because of the roar of the two motors, could hear little of what was said. This pilot was not a "hedge-hopper," or low flyer. He kept the plane at 10,000 feet so that the countryside spread out beneath them like a brown and white map.

To their left Mischa caught sight of the White Sea again. Later this gave way to a string of lakes, all of which were connected by wide, straight canals. These canals, he remembered, linked the Arctic and White Seas with Lake Onega, then with Lake Ladoga, and finally with the Baltic at Leningrad. In the summer the inland waterway is full of steamers, but now all the

channels were frozen, and no vessels were to be seen.

"That is wild country down below," Ivan said as they were nearing the end of their journey. "It is covered with forests and peat marshes, and has many bears and wolves. Until we started building roads, it was possible to travel over those marshes only when they were frozen solid. Why, even as late as 1926, we discovered tribes living in Leningrad Province which we thought had become extinct centuries ago. Those tribesmen are short and dark. They look much like the original inhabitants of this country. They call themselves *Vepsi* and *Vodi*. When we found them, they were living in mud huts, spending most of their time hunting and trapping. Instead of passing on the family name from one generation to another, they passed on the family sword."

"What has happened to them now?" asked his son, trying to catch sight of a mud hut below.

"Oh, they have all become good citizens. Most of them now help operate the big hoses and pumps which wash the peat out of the marshes so that it can be used in the new hydro-electric plants we have built here. The *Vepsi* and *Vodi* now have their own schools and even their own clubhouses and theaters."

As he finished speaking, the swamps gave way to the farmlands surrounding Leningrad. Soon the second-largest city of the Soviet Union loomed up through the gray mist, and it was not long before the plane was

circling down for a landing at the Leningrad airport.

Leningrad

It was a gray, cold city. To Mischa it looked as if it had been made of huge building blocks, painted with the smoke from its many factories. As they bumped wildly along the cobbled streets in the ancient bus which the government travel agency had sent to meet the plane, this feeling of the squareness and grayness of the city increased by the minute. After the brightness and gaiety of his native Moscow, the place seemed unusually severe. Even the people on the snow-filled streets did not look as happy as those of his home town. Most of them seemed to have colds or coughs, and all were as pale as mushrooms.

"I don't think I like this place much," he said to his father.

Ivan Borodin chuckled. "Don't say that to a citizen of Leningrad or you will make him an enemy for life. They think this is the most wonderful place on earth. You should hear them boast of their new apartment houses and factories and their ancient museums and schools and theaters. However, I think the only Russian from Moscow who ever loved Leningrad was Peter the Great."

"Yes, I know how he built the city on swamps and



Airplane view of Leningrad showing Uritsky Square and the famous Winter Palace of the former Tsars. It was here on October 25, 1917, that the Bolsheviks stormed the palace and gained control of the Government.

islands along the Neva River by driving huge tree trunks into the mud to act as foundations,” answered Mischa. “But why on earth did he pick such a dismal place for his capital? Why didn’t he stay in Moscow?”

“Well, for one thing, he had captured this part of the country from the Swedes and that made him proud of it. The other reason was that at that time Russian ships had to use the Baltic Sea to reach the rest of the world. Leningrad, or St. Petersburg as it was called at first, was the only port on the Baltic which Peter could use. That was why he put thousands of serfs to work building the city. History says so many of them died, during the cold winters, that Leningrad is built on bones.”

Mischa shivered: "But why haven't we rebuilt the place and made it more—well, more pleasant?"

"Because we may lose it if war comes. There is so much to be done and so little time to do it that we are making our greatest efforts to develop the Far North, and the Urals and Siberia in the East. Those places are so distant that no enemy can reach them. However, here in Leningrad we are keeping the factories running full blast. In the last few years we have built many modern housing projects in the suburbs. But, beyond that, we must wait a while before we think of remodeling this city. Always remember that, my boy, before you criticize."

Mischa felt properly scolded and said nothing more against the former capital. In fact, as the days of their brief visit passed, he began to like the place more and more.

The Astoria Hotel, where they stayed, was pleasant and warm behind its thick double windows. Many of the wide avenues and heavy square buildings were striking pieces of architecture. Every nook and cranny of the city recalled great moments in Russia's history. There was the magnificent avenue near the Neva River, for example. Once called the *Nevski Prospect* and now known as the *Prospect of the 25th of October*, this avenue had seen the start of the revolutions of 1905 and 1917.

There was also the Hermitage Museum with dozens

of stately columns. Formerly it had been part of the Winter Palace of the Tsars. It was there, in 1905, that another crowd of hungry people came to beg the Little Father for more food but instead had been shot down by his soldiers.

Farther along was the gloomy Peter and Paul Fortress, constructed by Peter the Great, and the Alexander Nevski Cathedral, built to celebrate Prince Nevski's victory over the Germans more than 700 years ago. It was in 1242 that Nevski teased the heavily-armored German Knights into chasing his army over the ice of Lake Peipus. The Russians crossed safely, but the Germans, weighted down with their heavy armor, broke through the ice and almost all were drowned.

Mischa's father was busy from dawn to dusk, inspecting Leningrad's endless factories, which produce 14 per cent of the industrial output of the entire Soviet Union and employ 11 per cent of its industrial workers. But Mischa soon tired of looking at tractors, locomotives, docks and electric plants and spent most of his time visiting the city's 60 museums and its colleges. Everywhere he was received courteously because people had read in the newspapers of his discovery of the iron ore and the reason for his trip.

He liked best the scientific laboratories where the great I. P. Pavlov once carried on his experiments and where other scientists are now experimenting with soil from all parts of the country so they can plant the

proper crops in the various different places to obtain the most yield.

Also, among more than 100 such institutes and schools, he enjoyed visiting the Institute of the Peoples of the North. There he found hundreds of students from Lapland and Siberia toiling over books on engineering and agriculture so that they could take the new knowledge back to their tribes. They were discovering the best methods of trapping animals for their fur, were recording and studying languages which never before had alphabets, and were learning about new plants which could grow in the frozen North.

One day he traveled to the immense Park of Culture and Rest which contains three theaters, a circus, three motion picture houses and a model state farm with cows, horses, tractors and farmers going calmly about their tasks while the city folk look on with wide eyes.

Finally Ivan's work was done and the Borodins went to the railroad station to take the Red Arrow Express back to Moscow. This streamlined train whizzed them toward home over a track on which there was not a single curve.

"It has been said that the reason this track is so straight," grinned Ivan, "is because, in the old days, Russian railroads used to be so crooked. Towns near the right-of-way would fight each other, and even pay huge bribes to government officials so that the track would come in their direction. When the road between



Peterhoff Palace, near Leningrad, designed by a French architect in 1715, reflects in its stone splendor the European culture which Peter the Great imported into Russia from the western world over 200 years ago. The Soviets opened the gardens as a public park and use the palace as a museum.

St. Petersburg and Moscow was constructed, city officials from all over this district stormed the Winter Palace with their demands. At last the Tsar lost his temper. He snatched up a ruler, placed one end at St. Petersburg and the other end at Moscow and drew a straight line. This is the straight line over which we are riding.”

Ivan then told of the near-by city of Novgorod, where Rurik, the first Viking king of Russia set up his government in the year 862. It was from this fur-trading city of Novgorod, or New City, that Rurik and his successors sent out their dragon ships to travel down

the Dnieper River so that they could make pirate raids on golden Byzantium or Constantinople.

Ivan said the province now had an area of over 350,000 square miles and a population of 7 million persons, almost a third of whom lived in the city of Leningrad.

"The whole of this country used to be under water for months at a time," he added. "But then, at about the time of King Rurik, this part of the European continent began to rise."

"Began to rise?" gasped Mischa. "You mean the land is going up in the air right this minute?"

"That's right. But don't become alarmed. The country rises only three or four feet every century. However, this has been enough to make the province much drier than it used to be."

CHAPTER THIRTEEN

STALINGRAD AND THE OIL CENTER AT BAKU

MISCHA AND HIS FATHER spent a quiet evening at home after their return from the north. Little Katia's eyes grew round with wonder as they told of the things they had seen. And Grandma, who had worked in Leningrad before she was retired on a pension, was full of questions about that city.

Bright and early the next morning they set out on the next "leg" of their trip. This time they were bound south on a journey of more than 3,000 miles. Their plan was to visit the provinces near the Caucasus Mountains, the beautiful Crimean peninsula, the wheat lands of the Ukraine and the steel mills and coal mines of the Don River basin.

Mischa wanted to go by way of the new canal which

links Moscow with the Volga River and which allows big ships from the Caspian Sea to come right up into the heart of the Soviet Union. Ivan assured him, however, that much of the Volga was still frozen and that the streamlined, diesel-motored river boats were tied up at their docks.

"I suggest we take the train," the father continued. "I want to talk to some railroad men along the line and see what improvements have been made. How would you like to travel—First, Second or Third Class?"

Mischa thought the problem over carefully. He knew that if they went First Class, they would ride in modern sleeping cars much like American Pullmans. Their fellow passengers would be government officials, artists, writers, engineers, actors and other people with high salaries who could afford to be luxurious.

If they traveled Second or Third Class, they would have to sleep on hard wooden beds in old-fashioned wooden cars, but they would rub elbows with farmers, soldiers and workers and find out how they lived and what they thought about the U.S.S.R.

"Let's go Third Class this time," he cried. "It will be much more fun."

The April sun was warm and the snow was beginning to turn into slush as they left their bus and splashed their way to the railway station. A pretty girl in the uniform of a conductor inspected their tickets and pointed out their car. (Even a Third Class ticket en-

titles one to a reserved seat on all the Russian trains.)

The small wooden railroad coach which they entered had a narrow aisle running the entire length along one side. Opening off this aisle were a number of equally narrow little rooms or compartments, each with its own entrance. A wooden bench was on either side of their compartment, and above each of them was a sort of shelf which at night formed an upper bed or berth. Thus the tiny room had accommodations for four persons.

The other occupants of the room followed close on the heels of the Borodins. One was a plump little woman who walked carefully as though she did not feel well. The other was a pretty, black-eyed girl of about thirteen.

The newcomers were not in the least bashful. The girl smiled at Mischa, and the woman held out her hand to Ivan.

"Grazhdanin," she said, "let us introduce ourselves at once and have it over with. I am Olga Petrova, and this is my daughter Anna. I work in a textile factory in Moscow. I have been ill and my trade union is sending me to the Crimea to rest. Anna will take care of me for a while and then spend her summer at the Artek Pioneer camp."

Ivan shook hands gravely and introduced himself and Mischa. Before the train started, they were all chatting like old friends, talking about their journey.

Leaving the gray station behind, the southbound express soon swept through a factory district where from tall chimneys black smoke rose into the spring sky. Then the train passed block after block of new apartments, and finally the open country was reached. At first the landscape was dotted with collective truck farms. Then these gave way to birch forests in which were located many *dachas* or summer homes. These dachas were simple cottages owned by skilled workers who earned enough money to enable them to have such a luxury.

"We are going to buy a dacha next year," said the girl Anna just as they passed a charming log cabin set above a little stream against a background of white birch trees.

"Really?" exclaimed Mischa who could not hide his surprise.

"Yes, really. Mama invented a way so that she could run two spinning machines instead of one and now . . ."

"Anna, Anna, be quiet." Her mother was actually blushing.

"Well, it is true and I am proud of it," cried the girl, her eyes flashing. Then, turning back to Mischa she continued, "Now mother earns twice as much as she used to. In the evenings she is going to school so that she can learn to be a textile engineer. After that she will earn even more and we can have our own dacha."



Everyone in the big cities dreams of owning a dacha, or cottage in the country.

"You are a Stakhanovite, then, Mrs. Petrova?" asked Ivan. He was referring to the miner, Stakhanov, who had invented a better way of digging coal, became a national hero, and started a movement to speed up production in plants all over the country.

"Yes, I'm a Stakhanovite. Maybe that is why I became ill," the woman replied. "Guess I worked too hard and studied too much. But we must finish the Plan as soon as possible; and Anna wants her dacha."

Just at that moment the sound of music came through the open compartment door. Mischa and Anna ran out into the aisle and discovered that four Red Army soldiers in the next room had tuned up their balalaikas, or long-necked, triangular banjos, and were singing as if their very lives depended upon it. The quartet sat on one bench, propped their shiny long leather boots on

the other, threw back their heads and blended their voices in "My Moscow."

Gradually the corridor filled with passengers. Soon all were joining in the songs, for a Russian likes nothing better than singing—unless it is dancing.

After that, all those in the car were one happy family. As the miles sped by, they played chess and dominoes, told each other their troubles, argued politics and read pamphlets and books to each other. Between times they visited the little stove which the conductor kept burning at one end of the car. A kettle of water was forever boiling on this stove. It was used to make the gallons of tea without which no journey is complete.

At mealtime, most of the travelers unwrapped loaves of black bread, cheese and sausages, and ate in their compartments. But Ivan invited the Petrovas to be his guests in the dining car. There they had meals as good as those served by the best hotels.

At night the girl conductor brought them sealed and sterilized bags containing a mattress, blankets, sheets and a pillow. She helped them arrange the upper bunks and make the beds, then she departed after bidding them a cheerful good night. The Petrovas and the Borodins turned out the lights and climbed into the bunks.

They awoke the next morning to find the compartment hot and shimmering with dust. Outside they could see endless plains, or steppes, covered with the bright green of spring wheat. Every few miles they

.

passed the white buildings of a collective farm and watched the farmers hurrying to the barns to milk their cows.

The Borodins said goodbye to their new friends and left the train at Stalingrad on the broad Volga River, but they promised to visit them in the Crimea later.

Stalingrad

The first thing that Mischa noted about Stalingrad was the wind. It blew steadily, carrying great clouds of yellow dust with it.

"The people here say there are just two ways of dealing with this situation," smiled Ivan. "You lean forward when you are going against it. And when you are going with it, you lean backward and let it carry you along."

Residents of Stalingrad did not seem to mind the wind any more than citizens of San Francisco mind the rain. They went briskly about their business through the wide new streets as though the wind were not blowing.

After having their breakfast at a cafeteria near the station, the visitors hired a taxi and drove through the beautiful Square of Heroes enroute to inspect the Tractor Works on the banks of the Volga. Mischa was particularly delighted by a fountain in the middle of the park which showed a group of happy children dancing

around the falling water. He soon noticed that the city was what is known in America as a "string town." It stretched for miles along the river but in places was only a few blocks wide. He remembered also that Stalingrad is in the heart of the Cossack country and that the Cossacks, who were hated by everyone in Tsarist times, have become some of the finest citizens of the U.S.S.R.

"Let's see how well you remember your history," said Ivan as they drove along the high cliffs from which Stalingrad overlooks the broad, muddy Volga. "What happened at Stalingrad in 1919?"

Mischa screwed up his eyes to think better as well as to keep out some of the whirling dust.

"That was during the Civil War which took place after the revolution," he began at last. "The Soviet Union was fighting for its life then because armies, which wanted to put the Tsar back on his throne, had captured most of Russia and Siberia except a narrow strip running from Stalingrad up to Moscow and Leningrad. In 1919 one of those armies was trying to cross the Volga so that it could turn north and strike at Moscow."

"That is about right, son. Continue."

"Well, Stalin and General Voroshilov knew that if that army of Tsarist Russians got across the river, the Soviet Union would collapse. They rushed down here with a few regiments of the Red Army, crossed the river

first and defeated the Tsarists. That was the turning point of the Civil War. In the next few years we recaptured the whole country.”

“Not bad, Mischa. Not bad at all for a history lesson,” said his father as their taxi rolled to a stop in front of the huge Stalingrad Tractor Works.

The Borodins were welcomed at the factory gate by a little man with a fierce up-turned mustache and a head shaved smooth as a billiard ball. He introduced himself as Peter Denchenko, the plant manager. After serving them tea in his office, he escorted them proudly through the busy factory.

“We are going to make many more than our quota of

The Stalingrad Tractor Works were producing caterpillar tractors like this one before the war. The factory, therefore, could be converted into making tanks when the war began.



50,000 tractors this year," the manager shouted above the noisy din of this modern plant.

"See this big fellow," he patted a monster tractor which stood twice as tall as himself. "It doesn't use a drop of gasoline. Burns wood, coal, peat—anything. We are building many of them for collective farms in northern Siberia where it is hard to ship gas."

Denchenko hopped over a pile of steel plates, dragged his visitors out of the path of an approaching truck and finally opened a door into the heart of the works.

"Here it is," he beamed. "This is our new assembly line." He pointed down almost half a mile of track where workmen were swarming like ants. "A tractor starts at one end as a blueprint. It rolls off at the other end under its own power, just as automobiles do at the Ford factory in America."

"Hmmm," said Ivan. "Are your workers as efficient as those at the Ford plant?"

The manager looked just a little embarrassed.

"Well, no, not yet," he finally admitted. "You see, we still have a great many raw peasants that we are training—Cossacks, Armenians, Georgians, Kalmyks and people from all over. At present I would say they are about half as efficient as American workers. It takes a while to make first-rate mechanics out of them since most of them never saw a monkey wrench till they came here. But we are progressing. The Stakhanovites are

showing the newcomers how to work efficiently. Already all of our engineers are Russians—graduates of our own technical schools. Give us another five years and our men will be as good as the Ford workers. This year we are racing with the Red Putilov Works, the best steel workers in Leningrad, and we are sure to produce more than they do.”

“What is that machine over in the corner?” asked Ivan, pointing to an ugly mass of metal on heavy caterpillar treads.

“That is our new model tank,” answered the manager grimly. “If war comes, it will take us only a few weeks to start turning out those monsters just as fast as that line of tractors passing you on the assembly line.” He patted Mischa on the shoulder and added: “The motto of the Stalingrad Tractor Plant is the same as that of the Pioneers: ‘Always prepared.’”

“Now, Mischa,” said Ivan, “I must have a conference with Tovarishch Denchenko and members of the Rates and Conflicts Commission. I would like to take you along, but I can’t. Until I am finished, would you mind visiting the nursery and the school. I told mother I would look in and see how they do such things down here, but I’m afraid I won’t have time. Will you do it?”

Mischa didn’t think too much of nurseries as places to visit, so he tried to put off going as long as possible by saying, “What is the Rates and Conflicts Commission? I thought you wanted to see only the factory?”

"I know why you asked that question," smiled his father, "but I'll tell you anyway. In our country the workers own all the land and the factories, the railroads, the banks and all large enterprises. But of course they could not possibly manage all these jointly. Some one has to be put in charge so that everything will work smoothly and according to plan. This person is called the Factory Director. He has a great responsibility, and he consequently must be given wide authority to manage the plant as he finds best."

"Suppose he does something wrong?" asked Mischa.

"Right there is where the Rates and Conflicts Commission comes in. Every plant has one, composed equally of workers and management. Whenever the workers have any objection to the way the factory is managed, they take the problem up with the Commission. The workers win about half the time."

"Suppose the Commission can't agree?"

"In some cases the workers sue the management in court. Furthermore, if a director is falling down on the job, the government department that appointed him will soon know about it and remove him.

"Besides that, the newspapers are a very important avenue of getting changes and improvements. You have often read the harsh criticisms and even attacks which appear every day in our papers on the way one or another factory is being operated. Every one of these complaints is investigated. If the criticism is found to

be true, the director has to explain how he is going to handle similar situations in the future so that there will be no further complaints."

"So the workers' correspondence really gets results," said Mischa. "What a tough life for the director, having so many people keeping track of him!"

Denchenko roared with laughter. "I can stand it. And no one deserves to stay as a manager unless he runs the plant properly, keeps the workers satisfied and makes the business show a profit at the end of the year."

"A profit!" cried Mischa. "An American boy I met said we didn't make any profits in Russia."

"Young man," said the manager severely, "every business concern that is not going bankrupt must show a profit. How do you think that we could have finished the Five-Year Plans unless our industries and collective farmers were making money? That profit—that money which remains after we have paid for the cost of materials and wages is used to raise the standard of living of the country, and to build more tractor plants, canals, schools and nurseries."

"Oh," said Mischa meekly.

"Speaking of nurseries," continued the manager, "here is ours, and here we are going to leave you." He opened a big door and ushered the boy into a sunny room filled with shouting children.

Mischa tried to look superior to the tots who ranged in age from a few months to 3½ years, but by the time a

white-clad nurse came forward to meet him, he had become quite delighted with the place.

The nurse, who had been told of Mischa's coming, proudly showed him about the nursery, or *crèche*, as it is called.

First she explained that a great many workers in the plant were women. In Tsarist days women workers had to leave their children at home in the care of a neighbor, or perhaps with no care at all. Now they bring their youngsters with them to the factory when they come to work in the morning; they visit them during the lunch hour and they take them home at night.

In the meantime, the tots are taken care of by registered nurses. The children are taught to feed and dress themselves as soon as they can toddle. They have all the toys they want. If they become ill, they are attended by a doctor. When they get a little older, they may attend kindergarten.

Mischa was particularly interested to see that many of the building blocks and other toys were too large to be handled by only one child. The nurse explained that this was done deliberately so that the children would learn to play together and to help each other.

The sun was warm and the dusty wind had died down, so Mischa had lunch in the garden with the others. Afterwards he became so interested in helping a slant-eyed Tatar boy put together a big toy tractor that he was quite disappointed when his father came in



ABOVE. An air view of Stalingrad in 1941, just before the war.

BELOW. Two years later—all that was left of Stalingrad after the Germans had attacked the city and were finally forced to surrender. This battle marked the turning point in the war.



to take him away so that they could visit elsewhere.

Mischa and Ivan spent the next few days dashing about the countryside in a Russian-made Ford automobile which the tourist agency had placed at their disposal. (Until very recently most cars built in the Soviet Union were modeled after American Fords, Buicks or Lincolns.)

First they visited the unfinished canal which some day will link the Volga and the Don Rivers. This is a huge project which is made difficult by the fact that the Caspian Sea, into which the Volga flows, is 85 feet below sea level, while the Don flows into the Black Sea, which is at sea level. Much water will be stored behind dams and much will be used to irrigate the dry lands along the lower Volga. But this will reduce the water which flows down the Volga to the Caspian, and could lead to a fall of the water-line there. This would cause the fish to die and would leave the docks and wharves some distance from the sea. So it was necessary to find other sources of water to pour down the Volga. This will be done by damming the Don, where it is closest to the Volga, and raising it to a level where part of its water can be sent by a canal toward Stalin-grad, where it will drop 250 feet into the Volga.

Engineers, working on the canal, told the Borodins that when it is finished, the Volga, the largest river in Europe, will be tamed. Its mighty waters, which in Tsarist days were used only to turn the grindstones of

village mills, will be driving eight hydro-electric stations, and ships from Moscow will be able to sail right out into the Atlantic Ocean and around the world.

When the job is done, the engineers said, droughts and floods in the heart of the Soviet Union will be things of the past; deserts will become fertile fields and some future Five-Year Plan will begin the task of linking up the European river system with that of Siberia.

Don River Basin

Saying goodbye to the Volga at last, the Borodins made a quick excursion into the Don River Basin. Before the revolution this valley was Russia's main source of coal, iron, nickel and other valuable minerals. Soviet leaders felt that the Don Region was dangerously exposed to enemy attack. Since they came into power, they have been making every effort to develop new mines in the Ural Mountains and in Siberia. As a result of their efforts, production has skyrocketed in recent years. Tsarist Russia produced just a little more than 29 million tons of coal each year. By 1938 this output had been increased almost five times to 137 million tons annually.

Although the Don Basin no longer holds the place it once did, the Borodins found its cities humming with activity. Blast furnaces belched flame from many

tall chimneys. Rolling mills turned white hot steel into glistening sheets of all shapes and sizes. And in the coal mines, sweating Stakhanovites worked with the most modern equipment to bring the precious fuel to the surface. Many of these Stakhanovites were former Cossack cavalrymen.

At one mine they visited, they found no miners at work, however. At this place the coal was being burned right in the earth. The gases produced were trapped at the surface and used to turn electric generators. In this way engineers hope that in time it will no longer be necessary to ship coal from the mines to the factories. It will be easy, then, to send the electric current through wires wherever it is needed.

After their trip through the Don River Basin, our travelers took an airplane bound for the Caucasus Mountains. They flew south from Stalingrad over a region of marshes and deserts until they sighted Mount Elbrus, the highest mountain in Europe, towering before them to a height of 18,470 feet.

"Prometheus was chained to a rock on the side of Mount Elbrus, according to the Greek myths," Ivan said softly as they swept alongside the great snow-covered peak. "The stories say Zeus punished him that way for having stolen fire from heaven and bringing it to mankind. There might be some truth in that legend, you know. The Caucasus is rich in oil and natural gas. Perhaps some ancient traveler found a vein



The Caucasus Mountains are crossed by the Georgian Military Highway. This region is rich in oil and natural gas.

of gas which had been ignited by lightning and thus learned the use of fire.”

They swept by other great mountains, such as the 16,546 foot high Mount Kasbek. Ivan pointed out the white ribbon of the Georgian Military Highway which runs for 135 miles through high passes in the ranges and connects the northern Caucasus with the southern Soviet Republics of Georgia, Armenia and Azerbaidzhan.

“The land south of the Caucasus was called *Colchis* by the Greeks, who had many colonies there in ancient times,” said Ivan. “It was to Colchis that Jason went to

find the Golden Fleece, you remember. Historians now think that the Golden Fleece was really the golden wheat which grows so richly there."

"Teacher told us that the collective farmers are raising lemons and oranges south of the Caucasus," said Mischa.

"Yes, and they grow tea and some of the finest grapes in the world. Not only that, but they cultivate mulberry trees for silk worms to feed on. We will have to take our vacation in trans-Caucasia some time. You and Katia would love the people there. You, Mischa, should be especially interested in the Armenians. Under the Tsars those poor people were beaten, robbed and murdered by the tens of thousands. They were treated worse than the Jews of old Russia, if that were possible. Now the Armenians have their own Soviet republic and are happy and prosperous for the first time in recent history."

As he was speaking, their plane passed the last of the mountains and came in sight of the blue, land-locked Caspian Sea. Below them they could see steamers of all kinds and sizes, hugging the coast as they traveled from the oil town of Baku to the mouths of the Volga River.

Mischa had expected that Baku would be a dirty, greasy place. In school he had read several short stories by Maxim Gorki in which the great Russian writer described the Baku of Tsarist days. Then it was a place

where oil stood in pools by the roadsides, oil oozed through the streets and oil killed all vegetation for miles around.

Baku

Now Baku had become a modern city of almost 700,000 inhabitants which showed no signs of grease or grime. Dazzling white apartments, factories, schools, theaters and museums rose on every side. Even the railway running through the town was electrified and gleaming.

When he visited the oil fields not far from town, the reason for the change was plain to be seen. Orderly forests of wooden towers showed where new wells were being dug with the most modern equipment. Every preparation had been made in advance to pump the "black gold" into steel and concrete tanks as soon as it reached the surface.

"In the old days," explained Ivan, "the oil was allowed to collect in big holes in the ground. Of course most of the gasoline in it evaporated while it was standing there, but nobody cared. In the first place, Russia used very little gasoline. In the second place, new wells could always be dug. What did it matter if most of the stuff evaporated or sank back into the ground?

"Now it is different. We need every drop of oil we

can find to run our new factories. Notice that row of black pumps over there which bend almost to the ground with every stroke and then stand up again. They are called pilgrims because they look as if they were saying their prayers. The old steam pumps we once used needed a large staff to take care of them. The pilgrims are operated by electricity, and one attendant can watch over a dozen of them."

"Gee," whispered Mischa as he looked at the miles and miles of drilling towers and bowing pilgrims. "I bet there is enough oil here to run every factory in the whole country."

"Then you must lose your bet. Once Baku did produce almost all of our oil—83 per cent of it, to be exact. Now it provides a much smaller percentage of what we need. In recent years scientists have opened new oil fields all the way north to the Arctic Circle along the line of the Ural Mountains, and in the Central Asian republics as well as other places. As a result, the output of oil in the U.S.S.R. has increased ten times, from less than 4 million tons in 1920 to close to 40 million tons this year. And our output is still increasing."

That evening the Borodins went to one of Baku's handsome new theaters. There they saw a talented company of local actors present one of Shakespeare's plays. Shakespeare is tremendously popular in the Soviet Union, and Mischa had studied several of his plays in school.

CHAPTER FOURTEEN

BLACK SEA PORTS AND KIEV

THE NEXT MORNING the Borodins took off from Baku on their long return journey toward Moscow. This time their plane flew south of the Caucasus, above the rich Kura River Valley. Beneath them blossoming tea, lemon, orange and grape plantations stretched as far as the eye could see like a blue, white and pink magic carpet.

Their pilot, a swarthy Armenian youth with flashing white teeth, shouted to them over the roar of the motor that they were following the route of the great pipeline which runs from Baku to the port of Batum on the Black Sea. Another line leads to Rostov, hundreds of miles farther north. Rostov is known as "the oil spigot of Russia" because of the endless gallons of petroleum which are

shipped from there by rail and steamer to all parts of the country.

"Off there to the south," continued the pilot, "is Mount Ararat, where Noah's Ark landed so that the animals could get out and stretch their legs. And right below us now is the beautiful Georgian capital of Tiflis, where my even more beautiful sweetheart lives." He made the plane jiggle its wings as though agreeing with him about the loveliness of his sweetheart. Then he added: "She is a sericulturist."

"A what?" gasped Mischa.

"A sericulturist. In other words, she takes care of silk worms. She sees that they don't get their little feet wet and that they have the finest mulberry leaves to eat. Now she has found a way of staining the leaves with chemicals so that the worms spin silk in many different colors. Since we no longer need to spend money to dye the thread, our fatherland can save millions of rubles each year."

Mischa found that his mouth was hanging open in amazement. He closed it quickly, and looked out of the window to avoid the pilot's laughing eyes. The flyer winked broadly at Ivan, but added: "It is true—every word I said."

The little plane glided down to the airport at Batum so that its passengers could board the Black Sea steamer which was to carry them on to Sevastopol. Before they went to the pier, they had just time enough to take



Examining silk-cocoons at a drying plant in the Uzbek Republic, U.S.S.R. The silk industry is important in the regions south of the Caucasus Mountains.

a quick trip through the remarkable botanical gardens which are the pride of Batum.

The steamer was the largest boat that Mischa had seen on his southern trip. It was brand new, with lux-

urious cabins, lounges and dining rooms accommodating several hundred passengers.

These passengers fascinated Mischa. Some were Red Army men in smart green blouses, dark blue trousers and black boots. Others were engineers, scientists and brisk government officials in regular business suits. But the most interesting were the farmers who crowded the decks, said goodby to relatives and friends, and were dressed in every type of costume. He even saw a few Uzbek and Turkmenian women wearing veils over their faces according to the Mohammedan custom which is rapidly going out of fashion.

Other farmers were carrying food for their entire trip in huge baskets. One old woman complained bitterly when a ship's officer told her she could not take a pig into her cabin. Looking at the throng of passengers, one would have thought that all the peoples of the Soviet Union were on the move, seeking new jobs, new lives and new adventures.

Black Sea Ports

The trip along the north coast of the Black Sea was like a voyage through fairyland. Each city at which they stopped was more beautiful than the last. All seemed white and glistening amid wistaria blossoms. This was the Soviet Riviera, the Russian California,



The Red Army and Navy Sanatorium at Sochi on the Black Sea.

where people came to rest and play and to forget the hardships of the long northern winter.

They stopped at Sukhum, Gagry and Sochi—all resort towns full of palm trees, luxurious hotels and rest homes. In the old days those hotels and homes were reserved for princes and men and women of wealth. Now they had been thrown open to all the citizens of the nation.

Next they halted briefly at Tuapse, a city of large oil refineries, and at Novorossisk, which makes 30 per cent of the cement in the U.S.S.R. At last they sailed out toward the open sea, headed for Sevastopol in the Crimean peninsula.

The sun was just rising over the Crimean mountains as they steamed into Sevastopol's magnificent harbor.

Mischa and Ivan leaned over the rail, gazing at the city which is so rich in Russian history. It was near Sevastopol that John Paul Jones defeated the Turkish navy after he had come from America to serve under Catherine the Great. There also the heroic defenders of the city held out for almost a year during the Crimean War of 1855 against the attacks of the combined armies and navies of France and England. And there, in 1919, the last of the Tsarist forces were driven into the sea by the Red Army.

No sooner was the ship tied up to the dock than a loudspeaker was turned on. To the sound of music, stevedores began dashing about, unloading cargo for Sevastopol and loading other shipments for Odessa, the great port farther to the west.

The Borodins stood on the dock for a while watching this scene. Then they walked up the sun-filled streets to the old-fashioned but comfortable Intourist Hotel where they had their breakfast of shirred eggs, toast, jam and *compote*—a sort of fruit cup.

Afterwards, while they were waiting for the automobile which was to take them on to the resort town of Yalta, Mischa and Ivan wandered along the high, white sea wall overlooking the harbor. Far out toward the horizon they could see the great lighthouse on the Khersonese peninsula blinking dimly in the daylight. Nearby the waters were jammed with merchant ships, fishing boats and the sleek submarines, destroyers and

torpedo boats of the Black Sea fleet at anchor there.

They walked back to their hotel through Sevastopol's famous flower gardens to find an old auto and its young sixteen-year-old driver waiting for them. The driver would not listen to their request that they start for Yalta immediately.

"No one leaves Sevastopol," he said firmly, "without seeing our cyclorama. It just is not done, Tovarishch."

"What is a cyclo-what-you-may-call-it?" asked Mischa.

"You will soon find out," grinned the driver. He threw his car into gear and they went charging through the streets, making pedestrians jump and traffic policemen shake their fists after them.

Soon they reached a hill in the suburbs. It was surmounted by a round, windowless building which looked something like a large, overgrown gas tank.

Black Sea Glider Boat. This ultra-modern vessel carries 150 passengers at a speed of 50 miles an hour. It makes the trip from Sochi to Sukhum in 2 hours—by bus the trip takes 10 hours.



An ancient caretaker sold them tickets and ushered them into the dim interior. Mischa gasped. He seemed to be standing on the same hill he had just climbed—but standing in the midst of the famous battle of Sevastopol. So real was the scene that it took him some moments to realize that it was all painted on a great canvas attached to the inside of the building's circular wall. Down in the harbor a British battleship had just fired a broadside and smoke seemed to be drifting lazily from its many guns. In the foreground a French battalion was charging the Russian trenches. And immediately beneath the little platform upon which the Borodins stood, the painting gave way to life-size, wax figures of wounded soldiers being bandaged by a group of tired-looking nurses.

"This is our cyclorama," murmured the old caretaker. "It was painted and sculptured by the great Frenchman, Roubaud, and it is famous the world over. You are looking at the battle from the very headquarters of the Russian general staff.

"It is said that when the Tsarist leader, General Wrangel, captured Sevastopol during the Civil War, the people of the city did not fight him much at first. They wanted peace. But when Wrangel announced that he was going to roll up our cyclorama and take it to Moscow with him, the people became terribly angry. This, they said, he must not do, so they all joined the Red Army and helped to drive out the Tsarists."

The Borodins spent an hour admiring the gigantic painting, then re-entered their car and set off at break-neck speed along a mountain road toward Yalta.

"This is the Valley of Death we are passing through now," said their driver half an hour later. "It is the battlefield of Balaklava where the Light Brigade charged the Russian artillery. That was a foolish thing to do, if you ask me. Our artillery has been the best in Europe ever since the Tatars taught us how to shoot rocks out of wooden guns 700 years ago."

They plunged deeper and deeper into the wild mountains, hanging onto their seats as the car squealed around hairpin turns at 50 miles an hour. Once, through a break in the clouds, they caught sight of *Ai-Todor*, or the Swallow's Nest, a medieval fortress which has now been turned into an inn. Then they swept back to the Black Sea Coast once more and saw Yalta gleaming, white and green and pink and blue, far beneath them.

This was the same town where four years later, in February, 1945, President Roosevelt, Premier Churchill, and Marshal Stalin met to decide the fate of Germany, already on the brink of defeat.

Both Mischa and Ivan fell in love with the town on sight. Its stucco buildings were freshly painted, each in a different soft color. And, wonder of wonders, two ancient battleships in the harbor were firing broadsides at each other.

"Don't worry about that shooting," grinned the

driver. "There is a motion picture company at Yalta making a film of some kind. Besides being a summer resort, the town is a sort of Russian Hollywood."

The Borodins spent several pleasant days at Yalta, resting from their trip. They looked up Olga and Anna Petrova, and found them living in a big sanitarium in a cypress grove near the bay. Mrs. Petrova looked fit and brown as a berry already. Her daughter was preparing to move to the Artek Pioneer camp near by.

Before Anna left, the four of them packed a picnic lunch and climbed up the near-by mountain peak of *Ai-Petri*, or Saint Peter, where Ivan had to inspect the new aero-electric plant.

After a long, hard climb, they came to a place where the wind blew a gale day and night, all year long. There the Government had constructed a whole series of giant windmills. These turned mighty electric generators which supplied light and power to all the surrounding countryside.

When they got back to their hotel, tired and hungry, they found a délégation of youngsters waiting to see Mischa. These Pioneers brought an invitation for the boy to visit the Artek Camp as an honored guest to tell of his experiences in finding the iron ore and of his adventures during his trip.

Mischa was all in a flutter. For once he would not have to sit back and say nothing while his father held conferences and made speeches. At Artek he would be a hero.



Happy days at the Artek Pioneers' Camp.

Artek Pioneers' Camp

At first the idea sounded fascinating, but when he and Anna drove to the camp the next day and were welcomed at the entrance by a brass band, his heart failed him and he could only stammer a few words of greeting.

That evening, after a banquet of many courses served on the lawn among the trim white houses of the camp, young Tovarishch Borodin did manage to face a laughing crowd of youngsters long enough to make some sort of speech. But afterward he never could remember what he said, although the boys seemed to enjoy it.

Artek, he found, was just the sort of place where a boy or girl would wish to spend the summer. It was a 1900-acre park overlooking the rocky coast. There were four divisions, two located back in the hills and two on the beach. The camps near the beach were equipped with modern, spick-and-span houses. The camps in the hills were centered around two lovely villas which once had belonged to Russian princes. In the summer those camps took care of 900 boys and girls ranging in age from 10 to 15, but now the camps were only half filled.

The children wore uniforms similar to those of American Boy and Girl Scouts, with sailor colors and red scarves drawn through a ring bearing the "Always Prepared" motto.

It seemed to Mischa that youngsters from most of the 60 major nationalities which live in the Soviet Union gathered around him to ask questions. He saw slant-eyed Mongolians, swarthy Armenians, Georgians, Jews, Tatars, Yakutians, Kalmyks, Uzbeks and Slavs. All of them had won vacations at Artek because of their especially good work as Pioneers. He also was attracted to a large group of dark-eyed Spanish children. These had been sent to Russia for safety during Spain's recent Civil War. Now they had become completely at home in their new surroundings.

After attending a theatrical performance presented in the big stadium by the Pioneers themselves, Mischa said a regretful goodbye to Anna. Then, to the cheers

of his new friends, he boarded the bus which was to take him back to Yalta.

The next morning he and his father made a tour of the many summer homes of former Tsars and princes which surround the city. They found that Livadia Palace, the residence of Nicholas II, last of the Tsars, had been transformed into a sanitarium. Then they saw the brightly painted palace where the Tatar Khans, or kings, once ruled the Crimea. Afterwards they had a good laugh when they came upon a palace which seemed to be the exact duplicate of Kenilworth, the home of Sir Walter Scott in England. There was only one difference. When they walked around to the sea side of the frowning stone fortress, they discovered that its former owner had used as a front entrance a marble duplicate of the front of the Taj Mahal in India!

Massandra

Next they visited the wine cellars of the Crimean Wine Trust at Massandra. For hours they wandered through cool caverns in which were stacked great barrels of wine with fascinating names like Livadia, Pinogri and Seventh Heaven.

The manager of the Trust pointed with pride to his sparkling laboratories where wines are tested, aged and

bottled. He showed them old bottles, bearing the date of 1775, and boasted that each of the varieties of wine his workers now made were equally as good as that ancient vintage.

"We buy the entire crop of grapes from the state farms near here," the manager explained. "We have completed the Five-Year Plan, too. Tell that to your people when you get back to Moscow, *Tovarishch* Borodin. We can make wine just as well as the people of Stalingrad can make tractors!"

"What is a state farm and how does it differ from a collective farm?" Mischa asked his father as, late in the afternoon, they left Yalta for Dniepropetrovsk, their next stop.

"A state farm is owned directly by the Government, just as is the post office," answered Ivan, "while a collective farm is owned by the peasants who threw all their little farms together to make one big one. On state farms the workers are paid wages by the Government, while on the collectives they divide the earnings of the farm each year after paying their expenses and taxes. State farms are mostly used as experimental stations where the very latest developments in seeds, farm machinery and methods of agriculture are first tried out. At one time the Government planned to operate gigantic state farms, hundreds of square miles in size, but they gave that up when they found that it took the workers so long to travel from their homes to the fields

that they got very little work done. Now collective and state farms seldom are larger than 5,000 acres, because that is the size which has been found most efficient."

The Borodins spent a day in the lovely old-fashioned Ukrainian town of Dniepropetrovsk. Mischa fell in love with its broad, tree-lined avenues and handsome old buildings. Ivan was delighted with its new steel plant, which employed 9,000 men and women and was making a large part of the country's metal tubes and oil pipelines.

The next morning they drove through waving wheat fields to the brand new town of Zaporozhe, where the great Dnieper Dam is located. The buildings in this place were mainly neat three and four-story apartments and many-windowed factories.

The dam itself was a breath-taking sight, stretching across the broad river in an arc 2,475 feet long and 168 feet high. Through its spillways roared untold gallons of water which turned generators large enough to supply power to all towns and farms within a radius of 500 miles.

The power station itself looked to Mischa like the inside of an enormous watch. Great pistons flashed back and forth, dynamos purred like tigers, signal lights flashed on and off and all the metal shone as though it had just been gone over with silver polish.

The manager, a blonde giant of a man, showed them around the entire power plant with tremendous pride.

"We have America to thank for this dam," he declared. "When it was started in 1927, we Russians did not know too much about building such huge projects. So we sent to the United States for Colonel Hugh Cooper, one of their greatest engineers, to come and help us build it.

"What a battle that was! Above the dam, where you now see a vast lake on which are sailing big ships bound for Kiev, there was only a jumble of wild rapids. Again and again floods threatened to wash the dam away before it could be completed. But we kept fighting. We had to keep fighting. Colonel Cooper wouldn't let us stop. We are indeed grateful to Colonel Cooper and the U. S. A."

The manager boasted that the Dnieper Dam was the largest in Europe. He added that the Soviet Union now produced more electric power than all other European countries combined and was exceeded only by the generators of America. Finally he pointed to a new aluminum plant near by and declared that it used his electricity to make 40,000 tons of metal each year. "That amount," he smiled, "is only 5,000 tons less than all the aluminum produced in the United States in 1940."

"Well, son," said Ivan, after they had said goodbye to the manager and his smiling crew of young engineers. "We must get back to Moscow for the May Day celebration. That leaves time for just one more stop on this trip. Where would you prefer to go—to

Kharkov or Kiev? This time, you may have your choice."

Mischa didn't hesitate for a moment. He had been to Kharkov and knew that it was one of the greatest industrial cities of the Union, with a population of over 800,000. He also knew that if he went there again, he would spend his time looking at more tractor plants, locomotive factories and steel mills.

"Let's go to Kiev," he said quickly. "Then, while you are out inspecting, I can visit Uncle Gregor at the collective farm."

"Fine," was the reply. "You go to the hotel and pack our bags. I will get the railroad tickets and send a telegram, telling Gregor to meet us at the station."

Kiev

Kiev had always been a wonder city to Mischa because of the tales which his uncle told about it when he came to visit the Borodins in Moscow. As Mischa saw it from the window as the train approached the city, it lived up to all his expectations. While Kharkov looks as though it had been constructed yesterday, Kiev seems as old as the hills on which it is built. Its winding streets are splashed with the golden domes of ancient cathedrals and monasteries. Its parks are filled with tall poplar trees and monuments to heroes of the past. Of course there are many modern factories, museums,

schools and apartments in this city of almost 850,000 inhabitants. But, in spite of the new constructions, the flavor of olden times can be strongly felt.

"Welcome!" Uncle Gregor shouted to them as they stepped off the train. His hearty handshake made them squirm. Then he kissed each of them on both cheeks through his blonde, walrus mustache. Tall, lean and brown, with a lazy drawl to his speech, Gregor looked much like a Texas rancher, except for his clothes. These consisted of a round cap, a gaily embroidered blouse which he did not bother to tuck inside his belt, and baggy blue trousers which he did tuck into his boots.

"Well, Ivan Stefanovich," growled Uncle Gregor after they all had had breakfast. "I give you permission to inspect all the factories in Kiev and to talk to each and every one of its 846,000 inhabitants if you like. But as for me and Mischa Ivanovich, we are going to see the sights of the city today and then go out to the farm until you are ready to leave town."

"Where do we go first?" cried Mischa with sparkling eyes.

"*Nevazhna*," answered Gregor, shrugging his broad shoulders and meaning "It doesn't matter." He thought a moment, then added: "How about taking a walk down Karl Marx Street, looking at people and into shop windows. The other day I saw a wrist watch in one of those shops which might just fit you."

"Da-da-da-da-DA!" cried Mischa. (In Russian the



Manager of a collective farm in the Ukraine.

word "da" means "yes," but when excited everyone repeats it with the accent on the last syllable. In the same way one doesn't merely say "net" for "no." It is "ne-ne-net!")

They spent the morning pushing through the crowds on Kiev's main street. They visited the spotless supermarkets where everything was sold from sausages to sandals. They stood in a long line, or queue, of other customers until it was their turn to buy that precious watch. Then they dodged automobiles which whizzed, tooting, along the streets in defiance of the white-uniformed traffic policemen. Once they stopped to stare at an old-fashioned *troika*, or carriage, drawn by three ancient horses. Gregor pointed out that while the horse in the center kept his head pointed straight ahead, the two outside horses had their necks bent to either side.

The rest of the afternoon they spent wandering through the ancient Pechersk Monastery, which now has been turned into a museum. After visiting the many church buildings above ground, they went down into the endless limestone caves beneath the monastery.

"In medieval times thousands of monks lived in these caverns," said Gregor in a low voice, as though fearing to awaken those old ghosts. "They spent their time preparing religious manuscripts and praying. When it came time for one of them to die, he would block up the door of his cave with bricks and mortar. The mummies of those saints are still found in the caves there."

"How many caves are there?" whispered Mischa.

"Nobody knows. It is said that they extend under most of the city. When the Tatars came here and conquered Kiev hundreds of years ago, many inhabitants of the city retreated into these caves where they lived out their lives, coming into the open only at night to attack their enemies."

"How did the Pechersk Monastery come to be built, Uncle Gregor?" asked Mischa after they had left the dust and the cobwebs of the caves and were boarding a bus for the collective farm.

"No one knows for sure, but there is a legend about it. In the year 1000, the Ukraine had a wise and strong Tsar named Vladimir. He was a descendant of the Vik-

A troika. These are fast disappearing from the streets; but in the old days, they were considered very fashionable. (Note that while the middle horse looks straight ahead, the other horses bend their necks outward.)



ings who ruled most of Russia in those days, but he became dissatisfied with the old Norse gods and decided that his people needed a new religion.

"Vladimir sent ambassadors to study the doctrines of the Jews, the Mohammedans, the Roman Catholics and the Greek Catholics. (There were no Protestants in those days or he probably would have considered their ideas, too.)

"Finally he sent a fur-clad messenger to the Patriarch at Constantinople saying that he and his subjects were ready to be baptized in the Greek Orthodox faith." Gregor smiled and fell silent.

"Then what happened?" cried Mischa at last.

"Oh, the Patriarch sent an answer right back saying: 'If you want to be baptized, dress in sackcloth and ashes and make a pilgrimage to Constantinople.'

"The story goes that Vladimir fell into a great rage so that for days his *boyars*, or councilors, dared not approach him. Finally he summoned them before him and announced: 'A Russian does not accept Christianity as a gift. He takes it! Gather my armies and my dragon ships! We are going to Constantinople!'

"Standards flying, horses prancing and shields flashing in the sunlight, the army soon was in motion. Alongside it, down the Don and Dnieper rivers, floated 2,000 sturdy war vessels, filled with men and supplies.

"When Vladimir and his army had crossed the Black Sea and encamped outside the walls of Constantinople,

the Tsar sent another husky blond messenger to the palace of the twin emperors, Basil II and Constantine VIII.

“‘My master,’ shouted the courier, ‘bids me tell you that he wishes to be baptized, along with all his host. He also bids me say that if you intercede in his favor with the Patriarch he will graciously consent to accept the hand of your sister, Anne, in marriage.’”

Gregor broke off his story and peered sharply out of the bus window at an endless field of wheat. “Hmmm,” he muttered. “This wheat has grown much faster than the crop on our farm. They must be using a new variety of seed. I will have to look into this.”

“Yes, but what did the twin emperors say to the messenger?” pleaded Mischa.

“Well, at first they were going to cut off his head and send it back to Vladimir as their answer. Then they went to the city walls, took one look at that mighty army of barbarians and changed their minds.

“‘Tell your master,’ gulped Basil, ‘that we will do the best we can for him. As for Anne, we also have several other sisters. He can take his choice if he will just go away from here!’

“The legend says that the very next day the Patriarch came out of his gilded palace and baptized Vladimir with his own hands. Meanwhile his priests passed among the Russian soldiery and baptized them. Then Vladimir looked upon all of the imperial sisters, but

still chose Anne. So they were wed and returned together to their northern land."

"That was a wonderful story," cried Mischa. "Tell me. . . ."

"That is not all of it, young fellow. When Vladimir reached Kiev, he gave orders that all of his subjects must journey to the city, bringing with them their idols of stone, iron and precious metals. When the fur-clad host had gathered, the Tsar appeared on the balcony of his palace and announced:

"'My druzhini (soldiers) are now going to throw all of your heathen idols into the Dnieper. If the owner of an idol objects, he will be thrown into the river along with it. While this is going on, the priests I have brought back from Constantinople will go among you and baptize you as Christians.'"

"Did anybody object?" asked the boy.

"Well, it is recorded that not one citizen of the province of Kiev got his feet wet that day."

"What happened to Tsar Vladimir after that?"

"He became very religious. He built a great church and called it St. Sophia, after the cathedral in Constantinople. He founded a magnificent university and allowed the Greek priests to create the Pechersk Monastery. After his death he became Saint Vladimir, or Saint Vavo, as he was nicknamed by his subjects."

"Tell me, Uncle Gregor," Mischa said thoughtfully, "why does the Soviet Government frown on religion?"

"You are completely mistaken," growled his uncle. "The Government does not disapprove of religion, as such. In this country any man, woman or child can go to church and worship as he pleases.

"What the Soviets disapproved of after the revolution was the state religion which the Greek Orthodox Church had become. You see, the Tsar had been made head of the church in this country, and the church had become tremendously wealthy. It owned much of the land of Russia, but it paid no taxes and it supported the Tsar in everything that he did.

"We felt that church and state should be separated as they are in the United States. That is exactly what we did—we separated them. Since that time, if the churches are properly cared for and have congregations, they are not interfered with. Millions of people in this country go to church every Sunday, just as other millions do all over the world."

Collective Farm

As Gregor finished speaking, the bus bounced to a stop before the big gate of their destination, the Kalinin Collective Farm. It was named after Mikhail Kalinin, the Chairman of the Presidium of the Supreme Soviet.

They clambered out and found themselves in the midst of quite a large village. On one side was a group



Here the four members of the family of D. Sannikov receive more than 350 tons of grain (rye and wheat) for their year's work on a collective farm in the Kirov region of the U.S.S.R.

of pretty white cottages. Each cottage was surrounded by its own vegetable garden and its own little orchard, and each appeared to be inhabited by a large and noisy family.

Farther along there were dormitories for the single workers. There also was a school, a handsome clubhouse, a small hospital and a laboratory for testing seeds and new methods of agriculture.

On the other side of town were many big dairy barns, as well as a garage, a blacksmith shop and numerous stables.

"Gee, I didn't know your farm was so big," cried

the excited Mischa who had lived in a city all his life.

"It isn't *my* farm, it is *our* farm," his uncle replied firmly. "About 1500 people live here, and every single one of them owns a share in this 5,000 acre establishment. They all tore down their fences and threw their fields together so that the Kalinin Collective could be created."

"But you are the manager, aren't you?" Mischa asked.

"No. I am in charge of the dairy, but that is a big enough job for any man. Come on. I want to show you our cows before dinner time."

The dairy was a model of cleanliness. As about a hundred fat Jersey cows munched at their hay, they were being milked by shining, milking machines. A number of girl attendants, dressed in clean white dresses, were taking care of the machines.

"In that building next door the milk is pasteurized and put into sterilized cans for shipment to Kiev. Next year we are going to install cream separators. People are beginning to ask for cream in their coffee these days, just as they do in America. I wonder what they will be wanting next? When I was a boy, the only cream we knew about was sour cream to put in our cabbage soup and on our cucumbers."

They reached the community dining room just in time to sit down to eat with a group of men and women workers who had returned from plowing in the fields. As the delicious courses were served, Mischa listened



Celebrating a successful harvest on a **farm** in the Ukraine.

to many heated arguments as to who had plowed the most acres and as to whether American tractors were better than those manufactured in Russia. Many of the diners, he learned, were employed by the near-by tractor station which supplied machines for all the collective farms in the vicinity. Most of the workers were Stakhanovites, and they were racing against each other to see who could finish his or her quota of work first. Mischa was interested in hearing that two pretty girls, who sat at his right, were leading in the friendly competition.

After dinner the young visitor had his choice of attending a motion picture at the clubhouse or remaining at the dining room where a dance was being organized. He decided on the dance and was well repaid. At first



Wedding Day in the Ukraine.

the farmers went through the mazes of Ukrainian folk dances which are not greatly different from American square dances, such as the Virginia Reel.

Then, as the little string orchestra warmed up to its work, various star performers began to take the floor. They whirled and leaped and spun like dervishes to the cheers and applause of the onlookers. Mischa was proud to see that his uncle and a laughing-eyed girl he seemed to be fond of, were awarded most of the honors.

The dance did not break up until almost midnight, despite the fact that those present had to get up at dawn to resume their work. Russians never like to go to bed as long as there is anyone to talk to or dance with.

As they were walking to their barracks, Gregor asked bashfully: "How did you like Klavdia Avramovna, the

girl in the embroidered dress with whom I was dancing?"

"Why, I thought she was very nice."

"I am glad you like her. We are going to get married this week."

Mischa could only gasp.

"When I heard that you and Ivan were coming, we decided this would be a good time for the ceremony. Let's see. This is Monday. We will go to Kiev on Friday to sign our certificate. Then I will bring Ivan back here for our wedding party."

Mischa spent the next few days in a whirl of excitement. One of the men from the station taught him how to drive a tractor and turn smooth furrows in the thick black Ukrainian soil. He learned to call all of the fine blooded horses in the stables by their names. He helped to plant vegetables. He attended the school where there were classes for some 350 farm youngsters, and he helped Klavdia and Gregor decorate and furnish the pretty white cottage which was to be their new home.

Although he would not have dared say so, Mischa was a bit disappointed with the wedding itself. It wasn't that he disapproved of the bride. Klavdia and he had become good friends, and he was convinced that she was the best possible wife for his uncle. It was the ceremony which failed to live up to his expectations.

Dressed in their best clothes, they drove to Kiev, entered what might be called the *State House of the*

Ukraine and finally located the marriage bureau. There they found Ivan, dressed in his best, waiting for them.

They took their place in a long line of young couples. When their turn came, a woman clerk gazed severely over her glasses at Klavdia and Gregor and warned them that, after marriage, they would have to take care of each other in case of illness and would be expected to provide a good home and proper education for their children. Next she asked the name, age, address, condition of health and occupation of each applicant. She entered the information in a book almost as big as herself . . . and that was all!

There was no rice thrown, no wedding music, no bridesmaids and best man. It was just a business transaction at which the only witnesses were Mischa and his father.

But the party which the collective farmers gave for

Kreshchatik Street in Kiev.



the newlyweds that night made up for everything. There were tables laden with the best foods. There were endless toasts to be drunk in *vodka*, the colorless Russian brandy, and in Crimean wines. There was singing and dancing and an amateur theatrical performance. The merriment lasted until almost sunrise.

Yes, Mischa agreed the next day after they had said goodbye all round and were on the bus enroute toward Kiev and home, Soviet weddings might not be as colorful as those in the old days under the Tsars, but they were lots of fun, anyway.

CHAPTER FIFTEEN

MAY DAY CELEBRATION IN MOSCOW

MISCHA AND HIS FATHER returned to a Moscow which looked amazingly different from the same city which had been so drab and cold when they had left it only three weeks before. Spring had arrived in their absence. The trees in the parks and along the sidewalks were covered with tiny leaves. The last piles of dirty snow had been flushed down the sewers by the hoses of the fire department. People had shed their overcoats and fur caps and looked much smarter and happier in their light clothing. The heavy, storm windows had been removed from all buildings, and the entire town was draped in red flags and bunting and decorated with enormous pictures of Stalin, Kalinin, and such revolutionary heroes as Lenin, Marx and Engels. Moscow, in

other words, was ready for May Day, its most important holiday.

The Borodins had been lucky this year—or perhaps Mischa's discovery of the iron ore was responsible. They had obtained tickets which allowed them to watch the all-day parade from the reviewing stand in Red Square. Every citizen of the Soviet Union longs for such a ticket although the stands can hold only about 10,000 people.

Grandma and Mrs. Borodin packed box lunches and the whole family set off for the Square at dawn on May first. After passing through several lines of armed guards who asked to see their tickets with a polite "*Pozhalouista*" or "Please" and returned them with the friendly word "*Khorosho*," or "That is fine," they reached their appointed places. These were located on a flight of broad stone steps under the Kremlin wall, just to the right of Lenin's tomb.

The stands already were jammed with onlookers, including the highest officials of the Soviet Union and the ambassadors of many nations. They recognized Premier Stalin's simple uniform and big mustache, President Kalinin's little gray beard, and Vice Premier Molotov's square jaw.

Then the great clock on the Kremlin boomed the hour, a loudspeaker blared out the national anthem and the parade began—on time to the minute.

From every surrounding street thousands of soldiers



Thousands of soldiers crowd Red Square for a celebration.

began marching into the square to the music of their bands. Regiment by regiment, they took their places until the entire oblong was packed with solid blocks of fighting men. The massed bands played a fanfare and around the corner of St. Basil's Cathedral galloped a squad of cavalry.

"That is Marshal Voroshilov in the lead," explained Ivan. "This is his yearly salute to the Red Army."

The Marshal, riding a spirited bay stallion, halted in front of the first regiment and lifted his hand in a smart salute.

The soldiers responded by throwing back their heads and shouting "Hurrah!" The sound came like a clap of thunder from one thousand throats and sent droves of pigeons flapping their way around the battlements of the Kremlin.

Marshal Voroshilov galloped to the next square of soldiers and repeated his salute. Again the thunderous battlecry answered him. And so it went until every regiment had been saluted in turn.

When the infantry finally had marched out of the Square, the great place was completely empty for five minutes or so. Then a roar commenced far down Gorki Street and swelled until it actually shook the ground. Into sight at last came a column of 60-ton tanks, traveling four abreast. Hundreds of them tore across the cobblestones at a speed of 50 miles an hour. When it seemed that they must dash themselves to pieces

against St. Basil's, they divided neatly into two columns and roared away in the direction of the Moscow River.

So it went, for hour after hour. Soldiers in tanks, in armored cars, on motorcycles, on horseback and afoot, passed in endless procession. In the sky above, bombers and fighters of the Red Air Force darkened the skies.

There were Cossacks, with their long black coats, tall fur caps and lances. There were columns of parachutists, both men and women. A detachment of grizzled veterans of the revolution marched past in their tattered uniforms, carrying bullet-torn flags.

Engineers went by, stringing telephone cables behind them, and as quickly removing them. Signal corps men set up a portable radio transmitter and dismantled it in the twinkling of an eye.

At noon the military part of the May Day parade drew to a close. The rest of the celebration would, as usual, be given over to a march through Red Square by the workers and farmers of the nation.

At this point Mischa left the reviewing stand. He squirmed through the crowd of onlookers, ran for half a dozen blocks and joined his Pioneer Troop just as it was moving up to take its place in the procession.

The Pioneers had spared no trouble nor expense to honor their own hero. On a framework borne by four trucks they had built a float showing a wild section of the Ural Mountains. The idea behind the display was that, when the float moved through Red Square,

Mischa and his troop would be busily engaged in "discovering" those famous chunks of iron ore among the rocks.

As the trucks turned clumsily into the line of march, they passed dozens of other elaborate exhibits. One float was a full-sized tennis court on which champion players would have a fast game as they passed the reviewing stand. On another, workers from the Stalin-grad factory were to assemble one of the new wood-burning tractors. Still other displays showed how Crimean wines are bottled and how a model dairy is operated.

Flanked by hundreds of proudly marching Pioneers, Mischa's float at last rolled through the Square. As the boys in the cardboard mountains dug for the "ore," the loudspeaker on the Kremlin blared out the story of their exploit. The thrill of a lifetime came when the crowd of onlookers burst into applause and the group of government officials lifted their hands in salute.

Mischa never was able to rejoin his family in front of the Kremlin, but he did find them afterward, when the parade ended at nightfall. The streets were so jammed with laughing, dancing merrymakers that all busses and street cars had stopped running. There was little chance of getting standing room in the subway either, so they walked home.

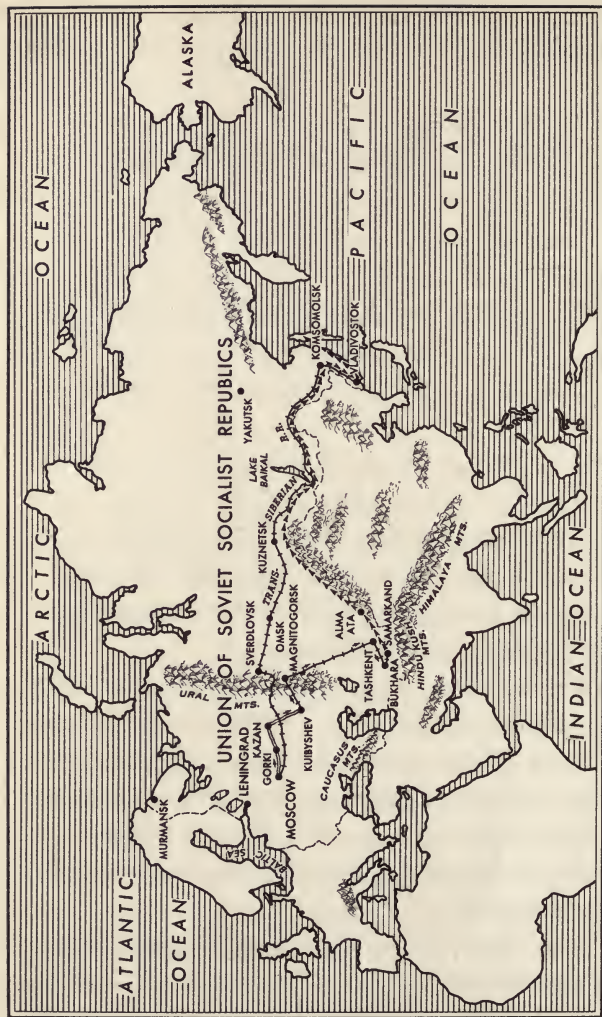
CHAPTER SIXTEEN

CENTRAL ASIA AND SIBERIA

MISCHA AND IVAN stayed in Moscow and had a wonderful time until the end of the three-day May festival. Then they set out on their third trip . . . this time en route to Central Asia and Siberia.

The winter ice was gone now and steamers were running on schedule all the way to Astrakhan at the mouth of the Volga. They boarded one of the smart new craft at a dock under the ancient walls of Moscow's Chinese City. (No Chinese ever lived in this city within a city. It probably received its name from the stone of which its walls are made.)

For more than an hour their ship skimmed through factory districts and suburbs. (Moscow has 4 million inhabitants and stretches for miles over plains and low



Map of the U.S.S.R. in 1941, showing the route taken by the Borodins in their trip through Central Asia, Siberia and the Far East.

hills.) At last they were among white birch forests. Shortly after that they left the Moscow River and entered the Oka. It was on the banks of a tributary of the Oka that Ivan the Great, grandfather of Ivan the Terrible, gathered a vast army with which to challenge the Tatar Horde. The battle never took place. For several months the two great armies were camped, facing each other. Finally the Tatar Khan turned back. After that the Tatars never could regain their former power in Russia.

The vessel on which Mischa and his father were traveling, reached the mighty Volga and stopped at the town of Gorki, named in honor of the Soviets' most popular author. Ivan visited the Molotov Car Works, which built 140,000 automobiles a year. He also wanted to see the Balakhna Paper Mills, one of the largest in the country.

"I think Maxim Gorki would be very happy about that paper mill if he were alive today," said Ivan as they drove back to the boat. "When Gorki was born here, this town was a collection of ramshackle hovels called Nizhni-Novgorod. When he became an author, very few people could read the books he wrote. Now, thanks to our thousands of new schools, almost everyone can read. And thanks to that paper mill and others like it, the Soviet Union is able to publish more books than any other country in the world. In 1939 we printed 701 million copies of 43,000 different books."

"How many of those books were written by Gorki?" asked Mischa.

"Between 1917 and 1937, Gorki's works sold 32 million copies. But the poems of Pushkin, the plays of Chekhov and the novels of Tolstoi and Turgenev were not far behind. In 1939 we published 117 million books written by foreign authors."

Mischa thought for a moment. "I suppose they were by Shakespeare, Mark Twain, Dickens, Upton Sinclair and Theodore Dreiser," he said at last.

"You forgot some."

"Oh, of course, I forgot Jack London! And I have read every one of his stories. He is almost as good as Gorki, I think."

Their boat swept on down the Volga, passing ships of every kind from Diesel-motored craft to barges and old paddle-wheel steamers which looked as if they had seen service on the Mississippi River during American Civil War days.

Their next stop was Kazan, once the capital of the Tatar Golden Horde, and now the chief city of the Tatar Soviet Republic. Here they seemed to be in another world. The Tatars became Mohammedans while they were marching through Turkestan en route to Moscow, and the architecture of their towns is noted for square mosques topped with domes and minarets. Ivan pointed to several old churches where the Mohammedan crescent was surmounted by the gold cross.

"Ivan the Great ordered those crosses put there after his soldiers had used Tatar gunpowder to blow up the walls of the city," he explained.

The visitors found that the modern Tatars were less interested in their beautiful, crumbling mosques than they were in their new factories, theaters, apartments and clubs and their fine university. However, the men still wore their little round caps, or *tiubeteika*, still had drooping mustaches and still spoke their own language.

The street signs in Kazan were printed both in Tatar and in Russian.

Again the boat stopped, this time at Ulyanovsk, the birthplace of Lenin, the great leader of the revolution. The passengers paid a visit to the house where he was born. They found that the place had been turned into a museum showing the life and achievements of its former resident.

The Borodins left the boat at Kuibyshev. This dingy city of 390,000 people is noted chiefly as a junction point for the transport routes of timber from the north, oil from Baku, grain from the Volga region and cotton from Turkestan. One day, according to Soviet plans, it will be the center of the "Big Volga" electrical and irrigation project which will be the largest in the world. At Kuibyshev the travelers boarded a train bound for Magnitogorsk one of the newest and greatest industrial centers of the Soviet Union.

At first the long, fast train swept through mile after

mile of steppe, or plain country, studded with collective farms. Then it crossed the southern spurs of the Ural Mountains and entered Asia. This was a semi-desert zone with a salty, ash-colored soil. The parched ground was sparsely covered with dusty grass on which a few skinny cattle grazed.

"What a depressing place," said Mischa, staring out of the dust-covered window. "A dozen Five-Year-Plans couldn't do anything with it."

"Look straight ahead, son, and tell me what you see," chuckled his father.

"Just two big brown hills without a single tree growing on them."

"Those are the Magnetic Mountains. They are almost pure iron ore and, ugly as they are, form one of the most prized possessions of the Union."

Magnitogorsk

As he spoke, the train swept around a curve and the smoking blast furnaces of Magnitogorsk came in sight. Shortly thereafter they alighted in the midst of this city of 200,000 population. Steel mills roared and clanked on all sides. Swarms of Russian, Finnish, Tatar and Ukrainian workers were rushing new apartments and factories to completion. Endless lines of box cars loaded with coal from the Kuznetsk Basin, 1300 miles



A night view of the huge blast furnace at Magnitogorsk. Fifteen years ago Magnitogorsk was an almost unknown spot behind the Urals in Western Siberia. Since 1932 an army of 200,000 workmen have built here a tremendous steel plant which is the biggest and most important source of pig iron in the U.S.S.R.

farther east, were being switched and shunted into the hungry doors of the steel mills.

"I never heard so much noise in my life," Mischa yelled above the din which was almost deafening him.

"These people are in a hurry," returned his father. "They are having a competition with the miners of the Don River Basin to see which can turn out the most steel this year. Come on. Let's see who is winning."

"Well, who is winning?" sighed Mischa a few hours later when, after a whirlwind tour of Magnitogorsk, they were again in the safety of their train compartment.

"The Soviet Union is winning," answered his father

with a wink. "All this competition between various farms, factories and mines is making the Russians work and learn faster than they ever did in all their history. A generation ago the average citizen was a lazy soul. He worked just enough to keep from freezing or starving and to be able to get drunk as often as possible. Now he is making up for all the centuries he has wasted. He wants new clothes, new schools, new houses. In getting them, he is turning his country into one of the greatest countries in the world."

The Kazakh Republic

South of Magnitogorsk the country became even more desolate. They were now whizzing through the great Kazakh Republic and on either side of the train thick white deposits of salt glittered in the sun. This was the region of "summer snow" once dreaded by thirsty travelers.

Yet, in the midst of this desert, Mischa suddenly caught sight of a broad belt of farm land shining with new wheat and flowering orchards. He blinked his eyes, thinking he was looking at a mirage, then realized the explanation. An irrigation canal cut across the horizon, bringing with it life-giving water which made the countryside blossom with life.

"That is just a sample of what the Plan will do to this



Nurpeis Baiganin, the national bard or singer of Kazakhstan, is shown here delighting a group of school children with his musical tales of long ago.

region,” said Ivan as they left the farms and plunged once more into the desert. “Kazakhstan needs only water to become a paradise. Once the great Syr Darya River passed through this region on its way to the Caspian Sea. Then the land rose and the river changed its course and now ends in the land-locked Aral Lake just to the west of here. But the old bed of the Syr Darya still exists and some day soon we will turn the river back into it. When that happens, the Soviet Union will have reclaimed almost a million square miles of fertile farmland.”

As the train plunged deeper and deeper into this strange place, Mischa tried to keep his mind off the heat by remembering some of the things he had been taught about Central Asia. He recalled that this wild

region, half the size of the United States of America, had first become known to the historians when it was conquered by Alexander the Great. (The Greek leader was on his way to India at that time.)

During the Middle Ages, Tamerlane, last of the great Tatar kings, built an empire here which at one time threatened to engulf all of Europe. About that period Marco Polo passed this way. He was en route to China along the famous Silk Route. In those days before the discovery of America, that famous caravan road was the only means of transportation between Europe and the riches of the Orient.

Later the Tsars took over the country with their Cossack armies. They wrung it dry of wealth and let it fall into frightful poverty and decay. The Tsars could never get a firm grip on Turkestan because the fierce tribesmen living there fought for their freedom at every opportunity. The Cossacks succeeded in remaining only because the country was inhabited by five different nationalities—the Kazakhs, Uzbeks, Turkmenian, Tadzhiks and Kirghiz. These races were encouraged by the Russians to hate and fight each other instead of combining against their real oppressors.

When the revolution of 1917 took place, however, the people of Turkestan at last got their chance to drive out the Cossacks. For a time the country was independent. Then its 17 million inhabitants voted to join the Soviet Union. In it they form not one nation, but five.



This collective farmer in Kazakhstan, near western China, uses a golden eagle for fox hunting. As long as the blinders cover the eyes of the trained eagle, it will sit quietly. As soon as the hunter sees a fox, he removes the blinders and the golden eagle soars aloft in search of the game.

Now that each people has its own Government, their quarrels are forgotten and each has begun to transform its territory from a wasteland into a place where life once more is worth living.

The Uzbek Republic

That transformation from the old to the new was seen as the train drew near Tashkent, capital of the thriving Uzbek Republic. Many miles from town, the desert vanished and on all sides the collective cotton farms,

watered by a network of irrigation canals, stretched as far as the eye could see. Yet through those plantations, caravans of camels ambled along, just as they have done since history began.

Tashkent itself was an amazing mixture of minarets; smoking factory chimneys; windowless, tumbledown mud shacks and modern apartments; twisting alleys and broad avenues; whining beggars and keen-eyed Stakhanovites. The old and the new were still mixed together, but there were signs everywhere that the new was winning.

They visited the Stalin Textile Plant, one of the largest in the country, where the local cotton is spun and woven into cloth, and then they went to see the Voroshilov Agricultural Machinery Works. (The latter makes fine plows to replace the crooked sticks to which the Uzbeks once hitched their wives and daughters when cultivating their fields.)

Later they took a bus to one of the near-by cotton collectives. They were made welcome at the farm by the manager, a tall, slim, olive-skinned young woman named Fannina Kaya. Dressed in a short skirt, sleeveless blouse and little, embroidered cap, Fannina made a charming picture as she led them through the fields. She boasted of a new type of cotton which was not harmed by the boll weevil plague and told them about purchasing a number of mechanical cotton pickers which would save thousands of hours of hand labor

when the time came for picking the cotton in the fields.

Afterwards she invited them to the *chaikhana*, or tea-room, in the farm's clubhouse; and there served them tea with honey and almond cakes.

"I suppose you noticed," she said in her soft, rich voice, "that half of our workers here are women. "But do you people up in Moscow realize what that means?"

"Well, women have equal rights with men all over the Soviet Union," answered Ivan, "so it is only natural that they should be working."

"Ah, yes. I thought so. You take such things for granted in the north. But," she leaned forward intently, "do you realize that up until 20 years ago Uzbek women lived in harems and could be stoned if they appeared unveiled in public."

"Yes, I know that," replied her visitor. "But . . ."

"But you cannot really understand it," interrupted the manager. "Listen. When I was married, at the age of 13, I had to kneel down and take my husband's boots off to show that I was his slave. Then the mullah, or Mohanmedan priest who performed the ceremony, gave my husband a whip to beat me with. Later, if I became ill, I was put in the barn with the camels until I got well. There were few doctors in Tashkent then, and not one of them would have dreamed of giving aid to a mere woman. I had to wear a shapeless black sack and a horsehair veil over my clothing. At night I slept on the floor until my husband jumped out of his soft

bed and kicked me awake at dawn. Now do you begin to understand what we women suffered?"

"I think I do. But how did you win your freedom?"

"It was in 1927," answered Fannina, "when the word was whispered through the harems of Central Asia that on March 8th, on International Women's Day, we would all gather at the market places of our home towns and tear off our veils.

"On that day thousands of women in black, with just their frightened eyes showing, marched out into the streets. As our menfolk stood and glared their hatred at us, we went to the market place, built a great bonfire, tore off our veils and hurled them into the flames."

"What did the men do?" asked Mischa.

"Here in Tashkent it wasn't so bad. Most of them jeered and shook their fists. Some, who understood a little of what the revolution meant, took our part and saw that we were not harmed.

"But in the smaller towns!" She shuddered and took a quick gulp of tea. "In the smaller towns, where the old customs were stronger, many women were stoned and beaten; some were killed."

"But all of that is over now," said Ivan. "The men accept you as equals wherever you go, don't they?"

"Except in the most backward communities up in the mountains, the old days are over," she answered, flinging back her head proudly.

"But what about your husband?" Mischa couldn't

help asking, because there was no sign of him around.

"My husband?" Fannina's white teeth flashed in a gay laugh. "Oh, he is up at the Voroshilov Works today, looking after the delivery of those new cotton pickers I told you about."

Bukhara

After their visit to Tashkent was over, the Borodins made a quick trip to Bukhara and Samarkand, two other important cities in this republic of almost 7 million people.

A hundred years ago Bukhara was the capital and

Turkmenian women formerly wove all their beautiful rugs by hand, but today carpet factories are fast replacing the slow hand methods.



holy city of all Turkestan. It ranked second only to Mecca in the Mohammedan world and no Christian could go there under pain of death. It was also famous for its rugs, which were even finer than those made in Iran. An Uzbek woman, sitting in her smoky mud hut or round horsehide tent, would work a whole month dyeing, weaving and knotting the threads of one square foot of perfect rug. Today Bukhara's mosques still stand, but the people of the town are more interested in their flourishing cotton plantations and textile mills.

A few workers are encouraged by the Government to weave the old type of rug so that the art will not be forgotten, but most of Bukhara's rugs are now woven in factories. They may not be quite so beautiful as the handmade ones, but they are much cheaper, and many more people can afford to buy them.

The visitors found that Samarkand the Golden, once the glittering capital of Tamerlane, the lame conqueror, has awakened from its centuries-old sleep. Now it is an oil center and soon may be as important as Baku. Tamerlane's tomb is still there, as are the ruins of his marble palaces. But over them tower the black oil derricks which speak of a new age.

Mischa and Ivan also made a quick trip through Turkmenistan, a large but sparsely-settled republic. Eighty-five per cent of Turkmenistan is covered by the Kara Kum Desert, or Desert of the Dreadful Sands. There they found a network of new irrigation canals,

cotton plantations and farms devoted to the raising of hardy Astrakhan sheep. Where canals had not yet been dug, the Turkmen planted their crops in the moist soil at the bottom of deep trenches they dug through the desert.

The Tadzhik Republic

From Turkmenistan the Borodins flew by plane over the Tadzhik and Kirghiz republics. The land of the Tadzhiks is known as the Roof of the World and is believed to be the first home of the human race. There they saw the tallest peaks in the Soviet Union—Mount Stalin, towering 24,950 feet into the clouds, and Mount Lenin, almost as tall. They also beheld the mighty glaciers and fertile, bird-filled valleys of the Karakorum, Himalaya and Hindu Kush Mountains. Flying above the mountains, they were able to look across the Soviet border into Afghanistan, India and China.

As they were sweeping over Lake Karakul, which lies two miles above sea-level, their pilot told them to look down.

"The Garden of Eden is said to have been located somewhere near that lake," he called back over his shoulder.

"I suppose they still grow apples down there," chuckled Ivan as he pointed down at the valley below.

"Some of the finest in the world," was the answer. "But oil, minerals and cotton are much more important. My home is near Lake Karakul, by the way."

"But you don't look Turkish," Mischa protested.

"We Tadzhiks are not Turkish like most other inhabitants of Central Asia," explained the pilot. "We are of Indo-European descent and speak a language much like Sanskrit." Then he smiled again and added: "Oh, I don't blame you for not knowing much about us. Until a few years ago Tadzhikistan was almost as isolated as Tibet and we were called the poorest and worst-educated people on earth. Now we are building hydro-electric plants and automobile roads and have 5,000 elementary schools, 40 high schools and 4 colleges. The Uzbeks used to call us dogs and 'the breadless people,' but soon we will be richer than they are."

They flew over a little white town and the pilot changed the subject. "That is Osh, the city which Adam is said to have founded after he was driven out of the Garden of Eden," he explained. "Recently it has become quite a mining center. It is one of the most important towns in the Republic of Kirghizia. Of course they raise fine apples down there, too," he added with a grin.

The plane landed at Alma Ata, capital of Kazakhstan and just across the border from Kirghizia. Mischa knew that Alma Ata, which means "The Father of Apples" was an important station on the new Turkestan-

Siberian or Turk-Sib Railway. But he was not prepared for the beehive of activity which the city turned out to be. The place was simply jammed with huge motor trucks which arrived from the east and departed in never-ending streams.

"This is the western end of the old Silk Route," explained Ivan as his son stared open-mouthed at the roaring, heavily-laden cars. "Since the Burma Road was closed by the Japanese, the Silk Route has become the only land road over which the Chinese can import heavy guns and other supplies. Few people know how many millions of pounds of munitions have gone to Generalissimo Chiang Kai Shek over this ancient caravan trail, but the experts agree that China would not be fighting Japan today if it were not for the help which comes through Alma Ata."

The Borodins also found that the pretty Kazakh city

The old and new in transportation over the old Silk Route connecting China with Europe by way of Alma Ata, capital of Kazakhstan.



was one of the centers of the Soviet motion picture industry. Its busy studios produced films which rivaled those of Moscow, Leningrad and the Crimea. They learned, too, that Alma Ata was the railroad junction through which wheat from Siberia poured into Central Asia in exchange for the cotton, oil, wool and minerals of the Five Republics. In Tsarist days this exchange had to be made through Moscow, a very round-about, costly and slow arrangement. Now the Turk-Sib road has made Siberia and Turkestan next door neighbors.

CHAPTER SEVENTEEN

SIBERIA AND THE FAR EAST

AS THE KAZAKH CAPITAL was also a station on the air route connecting Central Asia with the Far East, Ivan decided to use that method of travel in going to Vladivostok. He and Mischa caught the next two-motored, twenty-passenger plane that stopped. Soon they were speeding eastward just north of the mountains which separated the Soviet Union from China.

Their fellow-passengers were all Siberians, husky, good-humored men and women with the friendliness and hospitality of true pioneers. They made friends with the Borodins at once and soon were boasting about the parts of the country in which they lived. One, who had the red skin and high cheek bones of an Indian, and some of whose ancestors probably crossed

the Bering Strait to the New World, said the finest place on earth was Kamchatka.

A slant-eyed Mongol from the Buriat Republic maintained that his region near Lake Baikal in central Siberia would some day become the industrial center of the Soviet Union.

A Jew from Birobidzhan told of the new towns, factories and roads of that territory.

And a pretty girl member of the Young Communist League sang the praises of Komsomolsk on the Amur River.

"Komsomolsk is the city of youth," she cried, her brown eyes flashing. "We young Communists came from all parts of the Union to build it with our own hands. Soon it will have a population of 300,000, and 60 per cent of the people living there are under 30 years of age. Our shipyards are building war vessels for the fatherland out of steel made in our own factories."

The relief pilot of the plane, who had been lounging at one end of the cabin, broke into the conversation at that point.

"Tovarishchi," he said, "you boast much too much. You live on the warm steppes of southern Siberia or in the woodlands and swamps of the central taiga region and think you are being hardy, daring pioneers. But what about the people who are developing the ever-frozen tundras of the Arctic and who have opened up the Northeast Passage so that ships can now travel from



Komsomolsk—a young city in the Soviet Far East. To this wild and forbidding locality near Vladivostok, young workers from Moscow, Leningrad and other European areas came in the spring of 1932, to build this new city of youth. Since then, others have joined them so that it is today an important industrial center, consisting largely of young men and women under 30 years of age.

Murmansk around Northern Asia to Vladivostok?"

"Well, what about them?" grumbled the girl from Komsomolsk, who did not like to have her own story interrupted.

"Without boasting, comrades," said the pilot, throwing out his chest, "let me tell you that I was among those brave men and women who conquered the Arctic. Would you like to hear the story?"

"Oh, go ahead, you big he-man," sniffed the girl.

The pilot chuckled good-naturedly and took a seat.

"It all goes back a long time," he began, "to the days when the Tsars were trying to open Russian doors into the Baltic, into the Mediterranean and into the Pacific. While they were bumping their heads against walls to the west, east and south, they forgot completely that way up north there were great double doors that opened out on the whole wide world. Those portals were banked with snow and ice, but there was nobody to object to our forcing them open."

Russians love a good story-teller. The pilot promised to be one, so the passengers leaned forward and listened intently.

The Northeast Passage

"Of course," continued the flyer, "other countries sent explorers searching for the Northwest Passage from Europe through the Arctic Ocean north of North America to Asia. Cartier sought it and failed. So did Sebastian Cabot and Hendrick Hudson who had sailed as far as Hudson Bay in northern Canada.

"It remained for a Swede with the terrifying name of Baron Nils Adolf Erik Nordenskjöld to negotiate the Northeast Passage from Europe northeastward through the Arctic Ocean to Asia. He had noticed that other explorers started their voyages in the spring just as the ice was melting. But always their ships became frozen



Ice-breaker *L. Kaganovich*. The Soviets use specially constructed ships, such as this, to keep open the sea lanes in the frozen North as long as possible.

in before they had finished a third of their journeys.

“Now the Baron knew that all of Siberia’s great rivers pour into the Arctic. He reasoned that, in the fall, this great volume of river water would have been heated by months of sunshine. It would reach the Arctic, be carried eastward by the rotation of the earth and melt the arctic ice at the Pacific end of the Passage as it went.

“So instead of sailing in the spring, Nordenskjold left Sweden in July, 1878. And surely enough, a year later his ship was riding the waters of the Bering Strait. The Northeast Passage had been conquered!”

“By a Swede,” grunted the Mongol from Lake Baikal.

“True enough. But now I come to our part of the story. The Soviet Government realized that it could not

use the Arctic by such hit-or-miss methods. It needed ice-breakers to keep the Passage open three months a year. And it needed weather stations in the Far North to tell those ice-breaking ships in advance where the floes were forming and must be broken up.

"Tovarishch Borodin probably knows better than I do how we set up the Northern Sea Route Administration under Professor O. Y. Schmidt. However, I am telling this story.

"In 1933 Professor Schmidt took an ice-breaker all the way from Murmansk to Vladivostok in just two months. The next year he tried to make the same trip in the freighter *Chelyuskin*.

"You all remember how the *Chelyuskin* was caught and crushed in the ice and how it seemed for a time that all of its crew would freeze or starve on the ice floe where they had made camp after their ship went down.

"I was one of the aviators who brought food and supplies to the survivors of the *Chelyuskin* and then carried every one of them to safety. Later I was with Dr. Papanin when he established a weather station right on top of the North Pole, and during the summer drifted with the ice all the way to Greenland."

"Wasn't it terribly cold up there?" gasped Mischa.

"Not at all. Except during storms, we were quite comfortable. Why, one day I remember we even heard a bird singing. We dashed out of our double-walled silk tents, hardly believing our ears. Up to that time it



Soviet aviators were the first to fly the new polar air routes between Eurasia and the United States. In June, 1937, the plane, shown above, was flown from Moscow over the North Pole to the United States.

was believed that there was no life near the North Pole. But there, on a mound of ice, sat a little sparrow, singing as though its heart would break.

"After that," continued the pilot, "I was one of the men who flew over the Pole to the United States of America. And I have patrolled the Arctic and warned the ice-breakers where packs were forming so that the ships could break them apart or push them out of the way of the freighters. Between 1933 and 1941 freight shipments through the Northeast Passage totaled more than a million tons. If war comes and all other doors to

the Soviet Union are closed, our country can obtain her supplies and keep in touch with the world through the Arctic alone."

The pilot stood up slowly. "You may jeer at me and call me a he-man," he said to the girl from Komsomolsk. "Bah. I *am* a he-man." He thumped his chest with one big hand, then turned and sauntered away toward the nose of the plane.

"Tovarishchi," said a quiet voice, "I think we are making a mistake in boasting about our separate districts and our separate achievements. Remember that, officially, Siberia has ceased to exist. It is a part of the Russian Soviet Federated Socialist Republics and we are all Soviet citizens who must work together for our great fatherland."

They turned toward a little, dried-up man in a big sheepskin coat. He looked seventy years old but his black eyes were sparkling with youth and vigor.

"Let me tell you about the old days, when Siberia was called the prison of the peoples and when every man's hand was turned against his neighbor," continued the new speaker.

Siberia

"But first let me introduce myself. I am Igor Smolnik. In the year 1880, as a mere boy, I trudged all the way

from Moscow to Siberia with a ball and chain around my ankle. I was a political prisoner because I had dared to say that I did not like the Tsar.

"In addition to having that ball fastened to my ankle, I was chained by the wrist to a prisoner in front of me and a prisoner behind me. For months we marched, whipped on by our Cossack guards. We slept in cold barns at night and depended for food mainly on the crusts which pitying passersby threw to us."

"And you did not die, Uncle Igor?" marveled the Siberian Indian from Kamchatka.

"I was strong. Others died and were cut out of the living chain with cold chisels. I staggered on to become one of the many thousands of convicts who helped to settle Siberia. Like Lenin and Stalin and untold numbers of others who were imprisoned there at one time or another, I escaped from the prison camp where they put me. For a while I hid in caves like a wild animal. When nobody bothered to follow me, I became brave. I carved out a little farm in the wilderness. I married a Mongol girl and raised a family. When the revolution came, I helped it as best I could. Now I am the editor of a newspaper which is published in the town which has grown up around the farm I started so many years ago."

"Tell me, uncle," said Ivan. "Do political prisoners make up a large part of Siberia's population?"

"Not a very large part," was the reply. "Most of this

country was settled by pioneers. Many came because they did not approve of the Tsar's church and wanted to worship in their own way. Others moved eastward because Siberia was so large that they could find freedom from oppression here. A few slipped in with the intention of getting rich by robbing their neighbors. The latter came to bad ends, but many of the others found happiness by conquering the wilderness."

"Tell us about your village," someone suggested.

Yakutia

The old man's eyes sparkled. "Ah, it is wonderful," he cried. "It is located near the Arctic Circle in the Yakut Republic just above the city of Yakutsk on the great Lena River. The Yakuts originally came from Central Asia, you know. They were driven north when the Tatars invaded Turkestan. On that long march they forgot most of their culture.

"When I first came there, the people were ignorant hunters and trappers. They would trade a reindeer for a package of needles, or a silver fox skin for a bottle of vodka.

"Now the Yakuts have their own schools and books in their own language." He chuckled suddenly and added: "I remember that when the school teachers first came, they had a hard time getting the children to



In Yakutia. The fur-clad Yakuts are here seen bringing fish and furs by dog sled to trade with the men who have come to Cape Bykov by ship over the Great Northern Sea Route. (Compare the appearance of the Yakuts and the European Soviets.)

change their clothes, to take baths and to sleep in beds.

“But it is all different now. The Yakuts have become a wide-awake, progressive people. We have cleared much of the land and are growing wheat, fruit and vegetables for shipment to Yakutsk and other places.”

“You grow such things up there near the Arctic Circle?”

“Yes we do, even though the ground a foot or two below the surface stays frozen all summer long, and the mercury freezes in the thermometers during the winter. Why, the Yakuts have a joke about how it sometimes gets so cold that, when they speak, their words are frozen right in the air, and when they return to the same place the next spring they again can hear

the winter conversations as they melt in the warm air."

Uncle Igor waited until the passengers had stopped laughing at this tall story, then continued with great seriousness: "We can now plant grain, fruits and vegetables because Soviet scientists have developed new kinds of seeds and plants which grow well during our short but very hot summers. Wheat seeds are even treated so that they come up within a few days after they have been planted. Ivan Michurin, who was the Luther Burbank of Soviet Russia, created many hardy varieties of grain and vegetables for us to plant.

"Of course we use greenhouses, too. And we are even putting steam pipes in the soil of some of our collective gardens so the ground will thaw earlier in the spring and stay warm later in the fall."

"But isn't that a very expensive way of growing things?" objected the girl from Komsomolsk.

"Of course it is. But think how much more expensive it would be to ship food all the way from Turkestan to Yakutia. The cost would be prohibitive, especially in view of the fact that the only means of transport in the north are planes, river boats and reindeer sleighs."

For hours the talk continued as the plane skimmed along, just north of the mountainous Chinese border. Meals were served in the air by a pretty uniformed stewardess. That night they slept in comfortable berths, not even awakening when the plane stopped to re-fuel.

After they had breakfasted the next morning, the

slant-eyed chief pilot came out of his control room to chat a while.

"That is the independent republic of Tannu Tuva over there," said the flyer as he pointed to a land of broken hills and rugged valleys to the south. "It used to be a colony of Tsarist Russia, but it set up its own form of government in 1918."

"Did the Soviet Union recognize Tannu Tuva's independence?" asked Mischa.

"Certainly. The Soviet constitution says that any republic can withdraw from the Union any time it wants to. Tannu Tuva, however, was not one of our republics. But we gave the Tannu Tuvans our blessing just the same, and offered to help them any way we could. They are doing very well, too, I hear. We are selling them some of our best cattle so that they can improve their herds. They even have started building small factories in their villages.

"Now you can see Outer Mongolia over that next range of mountains," the pilot said half an hour later. "Fine people, those Outer Mongolians. Technically, the country is part of the Chinese Republic, but actually it is independent and has its own government."

"Aren't they worried that the Japanese will conquer them the way they did the Manchurians and Inner Mongolians?" somebody wanted to know.

"Not any more. Outer Mongolia has a mutual assistance treaty with the Soviet Union. Back in 1939 the

Japs started to move in on that republic. Immediately we sent the Red Army to help our allies. I was in that scrap—and what a scrap it was. In the four months it lasted, we shot down 600 Japanese planes. Then the enemy begged for peace.”

“That was not the first time we made the Japs say, ‘Uncle Ivan,’” spoke up a tall young man in a Red Army uniform.

“I was a guard on the Soviet border at Changkufeng Hill during the summer of 1938. I guess the Japs were after Vladivostok, which is only 80 miles from Changkufeng. Anyway, they attacked my patrol one morning. Naturally we fought back. Both sides rushed up reinforcements until two full divisions were engaged, and airplane dog fights were going on all over the sky above us. That battle didn’t last long . . . about a week as I remember. It resulted in a clear-cut Soviet victory, and got me this medal.” He touched his chest proudly.

“Since those two little wars, the Japs have left us strictly alone,” said the pilot as he arose to return to the control room. “Let us hope they continue to do so.”

After hearing such big talk about Vladivostok, Mischa was quite disappointed when the plane finally reached that city. The Russian port on the Sea of Japan looked down-at-the-heel and badly in need of repair. Docks and factories were busy, but the cobblestone streets were bumpy and all the buildings lacked paint.

“Remember how you felt about Leningrad at first,

Mischa," warned his father. "The same thing applies here. If the Japanese should ever attack Siberia, Vladivostok could hardly be defended. It is hemmed in by Jap-held Manchuria and Korea on the land side, while the enemy fleet could move up and shell the city in a matter of hours. No, we are not spending much money here just now. We are devoting our energies to new towns and ports like Komsomolsk, which are far enough away to be safe from a surprise attack."

Mischa saw a great many of those towns and ports during the next few weeks. He also saw armies of workmen finishing a new trans-Siberian railroad hundreds of miles north of the famous old line built by the Tsars. He visited many of the airports and radio stations which tie this almost roadless part of the world together. He went with his father to inspect the oil fields on the Russian half of Sakhalin Island. And from above one of the Soviet Commander Islands he looked eastward one fine spring morning and saw the American Aleutians.

Alaska

"Dad, how did Russia happen to own Alaska before we sold it to the United States?" he asked.

"Well, it is a long story, going back to the days when Ivan the Terrible gave all of Siberia to members of a noble family named Stroganov, who lived in the Urals.

"When the Stroganovs received the gift, they were being eaten out of house and home by the army of a Cossack Chieftain, named Yermak. He had camped on their estate without having received an invitation.

"So the Stroganovs said to Yermak: 'How would you and your men like to conquer Siberia for us? Of course you will be expected to send to the Tsar all of the furs and gold that you find. But if some of those things stick to your fingers, we will not mind.'

"Yermak did not mind, either. In the year 1580 he left the Urals with an army of 5,000 horsemen. He easily defeated the Tatars who tried to bar his path. Just 63 years later, descendants of those Cossacks reached the Pacific Ocean after having taken this vast land without fighting a real battle.

"For a time they thought about marching into China, but after taking a good look at the armies of the Celestial Emperor drawn up along the banks of the Amur River, the Cossacks decided to keep on going east. And so, by the time of the American Revolution, they were able to present Alaska to Catherine the Great."

"How did they manage to govern that wild territory?" Mischa asked.

"The truth is that they hardly governed it at all. At that time Siberia and Alaska were being mismanaged by a group of adventurers who came out here to rob and steal and make themselves rich. No effort was made to develop the country. The Tsars did not care a whit



Fur seals off the coast of Alaska. The fishing and fur industry alone makes Alaska a valuable possession of the United States even if we do not consider its other natural resources and its strategic position in the present Air Age.

about their eastern possessions. Instead they were busy making war on their neighbors while trying to snatch ports on the Atlantic and the Mediterranean, and they also were talking about driving the English out of India.”

“What did the English do about that?”

“They made it clear that they intended to attack Russia first! When that happened, the bankrupt Tsar became terribly worried. He knew that he could not hold Alaska against the British, so he hit upon the idea of selling that huge peninsula to the United States of America.”

“And were the Americans eager to buy Alaska?”

"Not at all. The Americans were in the midst of their Civil War and most of them did not want Alaska, even as a gift. They called the land Walrussia because they said nothing but walruses or polar bears could live there.

"One of the few Americans who thought Alaska was worth buying happened to be Secretary of State William H. Seward. Even Seward was not anxious to part with the \$7,200,000 which the Tsar wanted for the territory. But, on the other hand, England was supporting the Confederates and talking about sending her fleet to blockade northern ports. So the Secretary of State hinted that if Russia would make some sort of gesture of friendship toward the United States, perhaps the British would hesitate about attacking either of the countries, and perhaps the sale of Alaska could be arranged."

"That was certainly a mix-up, Dad. What happened?"

"Well, in 1863 the entire Russian fleet, headed by its flagship, the *Alexander Nevski*, paid a long visit to American ports. The warships were welcomed with tremendous enthusiasm. *Harper's Weekly* proposed a Russian-American alliance and added that 'Russia, like America, is a nation of the future.'

"Oliver Wendell Holmes wrote a poem of welcome, one verse of which read:

*"Black are our shores with the blasts of December.
Fettered and chill is the rivulet's flow.
Throbbing and warm are the hearts that remember
Who was our friend when the world was our foe."*

"Not only that, but the Western Union Telegraph Company proposed the immediate construction of a telegraph line running from the State of Washington across Canada, Alaska and Siberia to Moscow.

"After the Civil War had been won, Secretary Seward and the Russian ambassador resumed negotiations for the transfer of Alaska. In 1867 the deal was finally approved by the United States Senate. The Senators still thought they were buying an almost worthless piece of land. However, they felt they should show their appreciation for the visit of the Russian fleet."

"But Alaska really was valuable, wasn't it?" asked Mischa.

"It certainly was. Only a few years after the sale, fisheries in the territory were earning six times the purchase price every year. And during the great Klondike gold rush which occurred near the close of the 19th century, Alaska again paid for itself many times over."

"Whatever happened to that telegraph line, Dad?"

"It was abandoned when the Atlantic cable was constructed, but now the Americans are planning to build a great highway across Alaska. When it is completed,

it will connect with Siberian highways we are building.”

“Perhaps, in a few years, we will be able to travel by automobile all the way from Leningrad to New York,” cried Mischa.

“I would not be at all surprised,” answered his father.

After their trip to the Far East, the Borodins started their 6,000 mile journey back to Moscow. Ivan wanted to check on the latest improvements being made on the Trans-Siberian Railroad, so he booked passage on this longest railway in the world. For ten days and nights they rolled steadily westward through the rich, wooded taiga region which forms the heart of Siberia.

They discovered that the great trunk line had been double-tracked for its entire length. Streamlined trains with red stars on the fronts of their locomotives whizzed past them at frequent intervals, and freight traffic was heavy.

Hundreds of villages slid by outside their car windows. These looked much like the towns of America's West during pioneer days. Their buildings were made of heavy logs; their dusty streets were lined with blossoming asters, daisies, hollyhocks and sweet peas.

From time to time they also passed through larger towns where the log cabins gave place to modern factories, stores and apartments. Mischa was particularly impressed by the mighty development in the Kuznetsk Basin, the coal mining region located in the very center of Siberia. There he visited mines where the coal,

close to the surface of the ground, lay in seams 50 feet thick. He was told again and again by proud and sweating miners that the "Kuzbas," as they called the district, has twice as much coal as Germany, and every year mines more fuel than was dug out of the ground in Russia during all the years before 1917.

They visited Stalinsk, which had grown from a village of 3,000 people in 1917 to a roaring boom town of a quarter of a million inhabitants. On a trip to the city of Novosibirsk, they saw plainly why this terminus of the Turk-Sib railroad is called the "Siberian Chicago."

Then they traveled through such thriving centers as Omsk, once a mere ferry crossing the Irtysh River, but now a vital railway junction, and Sverdlovsk, which is known as the "Pittsburgh of the Urals" because of its many steel mills, factories and freight-car plants. Sverdlovsk was once a sleepy little town, called *Ekaterinburg* in honor of Catherine the Great. It was there that Nicholas II, the last of the Tsars, was executed when it seemed as if he might be rescued from prison by his generals and put back on the throne.

As the long, heavy train was crossing the Urals en route to Moscow, Ivan happened to get into a dining car conversation with one of a group of American business men who were using the Trans-Siberian as the quickest way home from China.

Most Russians know at least one foreign language these days, whether it be English, German, French or

Spanish. Both Ivan and Mischa had made English their second language, so they were able to chat quite easily with their new acquaintance who introduced himself as Anthony Benton of Cleveland, Ohio. The Borodins did find, however, that the American language is quite a bit different from the English they had studied. Often they had to ask Mr. Benton to repeat words and even sentences when he used slang phrases.

The American was quite impressed with the things he had seen on his trip across Siberia.

"I would not have believed it," he said at last, "unless I had looked at your new cities and factories and mines with my own eyes. I thought Siberia was a wilderness, but I find it a bustling pioneer country much like my own Middle West must have been when its industries and railroads were being built. Life in Siberia is hard, but the people really seem to enjoy it."

"You like the Soviet Union, then?" Ivan asked politely.

"I like the Russian people," Benton frowned thoughtfully. "They are the friendliest and most hospitable folks I have ever met outside of my home state. And I like the way you do things on a big scale, as we Americans do. I can't say that I approve of your idea that everything except a man's house, clothing, furniture, garden and his cows and chickens should be owned collectively. In the United States we believe in private ownership, except for such things as the

post office, maybe. We also believe that any man has the right to make a million dollars if he is able to."

"It is possible that a man could earn a million dollars in the Soviet Union," said Ivan with a smile. "Many of our authors, actors and inventors make very high salaries. The difference is that they cannot invest their wages in stocks and bonds and then sit back and live on the interest. To keep on earning, they have to keep working."

"Oh," said Benton, "I didn't know that. But, as I was saying, even if we disagree on the right way to run a country, I don't see why we should quarrel. Your system suits you and ours suits us. You folks have lumber, furs, minerals and other things that America needs, and we are making all kinds of machinery that you could use."

"Perhaps in a few years the Soviet Union will be America's best customer," cried Mischa.

It was the morning of June 22, 1941, when the Borodins got back to their home town. The day was so beautiful and warm that they decided to walk from the station to the Gosplan Offices where Ivan had to turn in the first draft of his report on the trip.

The sky was light blue. Gardens were blossoming. Farmers, in from the country, were peddling baskets

of fine strawberries. Children, released from school at last, were playing with tops and balls in the streets as they do the world over. Traffic policemen, in their spotless white summer uniforms, were busy at their posts.

As the Borodins crossed one of the city's many parks, a loudspeaker fastened to a telephone pole was blaring out the strains of the Totem Pole song from "Rose Marie" the popular American musical comedy.

"That reminds me," chuckled Ivan. "'Rose Marie' has been playing in Moscow for three years and I have never seen it. The show tells about Canada, the Hudson Bay Company and the Northwest Mounted Police. It should be especially interesting as we can compare Siberia with Canada. Let's celebrate our return home by taking the family to 'Rose Marie' tonight. I am sure that even Katia and Grandma will want to go this time."

"Gee," cried Mischa. "That would be marvelous. I . . ."

He stopped suddenly. Something was missing! Then he realized what it was. The Totem Pole song had stopped in the middle of a bar. Only a low grinding sound came from the tireless loudspeaker.

"I wonder what . . . ?" began Ivan.

The loudspeaker came back to life and cut him short.

"Tovarishchi! Attention!" It was the voice of an announcer, trembling with emotion. "Tovarishchi! Attention! Vice Premier Molotov will now address you."

Another voice now came over the air.



A Soviet traffic officer in summer uniform.

"The Soviet Government and its head, Comrade Stalin, have authorized me to make the following statement," Molotov began.

"Today at 4 a.m. the 22nd of June, 1941, without any claims having been presented to the Soviet Union; without a declaration of war, German troops attacked our country. They attacked our borders at many points and bombed from their airplanes our cities of Zhitomir, Kiev, Sevastopol, Kaunas and some others. . . ."

As white-faced people from all over the park came running up in order to hear better, the quiet voice continued:

"The Government calls upon you, citizens of the Soviet Union, to rally still more closely around our glorious Bolshevik party, around our Soviet Government, around our great leader and comrade, Stalin. Ours is a righteous cause. The enemy shall be defeated. Victory will be ours!"

CHAPTER EIGHTEEN

CONCLUSION

WE WOULD LIKE to follow the fortunes of the Borodin family during the years of war between the Axis and the Soviet member of the United Nations. But that is impossible. For one thing, it is hard to obtain information about individuals at a time when millions of persons drop all other tasks in order to fight an invader. Besides, those adventures, if they could be written down, would fill a book larger than this one.

This much we do know:

Ivan re-joined the Red Army as a captain of artillery and helped beat the Nazis back from Moscow. (In the Soviet Union every male citizen receives several years training in the army and can always be called back to the colors during an emergency or in time of war.)

Mischa became a leader of the Timurites. The Timurites are made up of the very best members of the Pioneers and form an army of millions of youngsters. They help the women keep the fields cultivated and the factories running while the men are at war. And they quickly learn to help with Civilian Defense, to care for refugees, to repair machinery, to operate tractors and even to make many kinds of tools and utensils without which no country can operate for long.

Mrs. Borodin became a nurse and later received a medal from the hands of Premier Stalin himself for her work in caring for the wounded in the front lines.

Grandma took care of Katia, Mischa and the apartment. When fuel became scarce during the first winter of the war, she went to the forests near Moscow and dragged back loads of wood on a big sled. She raised a few chickens in the kitchen so that her family might have meat to eat on the few occasions when they were all at home together. And when the German bombers came over the city at night, she and little Katia stood guard on the roof and doused incendiary bombs with water just as calmly as though the fiery, sputtering things had been vegetables in their Victory Garden.

As for Uncle Gregor, you can imagine what he did! When the Germans swept over Kiev, he and his pretty wife organized a band of guerillas, or Partisan fighters. They lived in the caves of the Pechersk Monastery during the daytime, and at night they came to the surface



The Red Army stubbornly defended every foot of Soviet soil, taking a heavy toll of the advancing Nazis.

and made the lives of their enemies miserable. They would blow up ammunition dumps, slash the tires of trucks, shoot enemy sentries, and once they captured a Nazi general and took him and his staff car, filled with military information, right through the lines to Red Army headquarters.

But what, you may be wondering, was the Soviet plan to defeat the Germans. Well, first let us look at the German plan for the conquest of Russia. Hitler's generals were determined to encircle the Red Army and cut it to pieces at the border. Then they intended to march into Moscow and Leningrad and spread all

the way across the country until they met the Japanese somewhere near Lake Baikal in Siberia.

The Red Army plan was equally simple—and much more successful. It would not let itself be encircled!

It would stand and fight until it saw the German tanks start to break through its ranks. Then it would retreat, but not before it had destroyed or carried away everything in the vicinity which the Nazis could use.

This was the Scorched Earth policy. It meant that every time the Nazis advanced they had to bring all of their supplies with them. They could not live off of the country. The plan was so successful that the Japanese never dared to march into Siberia.

Not only that! The Russians, as they retreated, dismantled the factories of central Russia and the Ukraine and shipped them, piece by piece, far back into Siberia and the Ural Mountains. With those factories traveled the men and women who knew how to run them. Soon, in their new locations, they were turning out guns and clothing and airplanes and tanks for the Red Army.

Stalin, in his speech of July 3, 1941, had told the Soviet people “. . . all rolling stock must be evacuated; to the enemy must not be left a single engine, a single railway car, not a single pound of grain or a gallon of fuel. . . . All valuable property, including metals, grain, and fuel which cannot be withdrawn must, without fail, be destroyed.” This seemed to the rest of the world an impossible task, but the Soviets largely accom-



The Red Army, as it retreated, blew up every bridge, dismantled or destroyed every factory and left nothing that the enemy could use. Here we see one of the bridges being dynamited by the Russians.

plished it. For example, the Kirov works in Leningrad was moved to the Urals. This huge plant employed over 30,000 workers and covered nearly a square mile of ground. With its open hearth furnaces, electric steel furnaces, huge rolling mills, forges, and heating furnaces, it was one of the largest factories which made war equipment. Yet it was completely taken down and shipped hundreds of miles east where it was set up again and was soon making tanks and other war supplies. During the course of the war, more than one million carloads of equipment and materials were moved eastward.

By the early spring of 1942 this great movement of industry had been completed. The tractor works

of Kharkov was working, partly in Siberia, partly in Central Asia, turning out tanks. The agricultural machinery works of Rostov had settled in Tashkent and was making tools with which to plow the Nazis under. New steel mills, plane, tank, and armament plants, built during the war, had gone into production in the East. Men had been drafted into the army and their places in industry filled by women. Inexperienced boys had taken the place of skilled workers. Old men, who had retired on a pension, were called back. Millions of people had moved to new homes where the comforts of life were so few that they kept on working only because they realized how much their country needed their best efforts.

Probably the hardest thing the Russians had to do was to blow up the splendid Dnieper Dam. But they did it, after having moved the big generators and other equipment back to where another dam was being completed east of Novosibirsk. The husky director of Dnieprostroy touched off charges of T.N.T. under the towering concrete walls with his own hands. Then, as the earth shook and the flood of water began to pour through the holes in the structure, he shook his fist at the advancing Germans and swore to return some day.

But still the Nazi horde came on. It besieged Leningrad. It rolled to within sight of Moscow. It captured Kiev and Kharkov and Odessa and, after a nine months' siege, it overwhelmed the heroic defenders of Sevast-

topol. It engulfed all of the Ukraine and the rich Don River Basin and swirled up to the gates of Stalingrad and the towering ranges of the Caucasus.

Aid from the United States

Meantime, what were the United Nations doing? On the day that Hitler attacked the Soviet Union, the British Prime Minister Winston Churchill spoke over the radio and pledged full support to the Red Army. Soon the United States began sending lend-lease aid from America across the seas to the Russians.

Braving packs of Nazi submarines, huge convoys of American freighters laden with guns, food, clothing, airplanes, tanks and a thousand other articles began steaming around Norway into the Soviet port of Murmansk. And there they found an army of workers eager to unload the ships, even while enemy planes hurled bombs down upon their heads.

Other convoys arrived in the Persian Gulf. And through Iran, trains and trucks carried more munitions to waiting Soviet ships on the Caspian Sea. Still others arrived at Vladivostok. And streams of bombing planes, with Russians at the controls, flew from Alaska and Canada across the Bering Strait to Russia. Shipments of seeds—tens of thousands of pounds of them—were collected by American farmers and sent to their new

friends in Soviet Russia, half way around the world.

By the spring of 1943, the tide of battle had turned. German armies were forced to give up the siege of Leningrad. The half-starved people of that city, led by Marshal Voroshilov, chased their enemies all the way to Lake Peipus, just as Prince Alexander Nevski had driven the greedy German Knights before him hundreds of years ago.

The Germans were driven back from Moscow, too.

At Stalingrad a great Nazi army was encircled and destroyed in just the way it had hoped to destroy the Russians.

The Ukraine, the Don Basin, the Crimea and the Caucasus were restored to the Soviet Union. By the spring of 1945 the Red Army had not only driven the Nazis out of the U.S.S.R. but had cooperated with the other Allies in invading and defeating Germany.

Reconstruction

But what a sight met the eyes of the Russians as they returned to their homes! It is true that, with their Scorched Earth policy, the Soviets had destroyed their factories and railroads and mines as they retreated. But the Germans left nothing at all!

Schools, apartments, churches, museums and even monuments had been leveled to the ground. The entire populations of large towns had either been killed or



The United States helped the Soviets to turn the tide of battle by shipping to them billions of dollars worth of "jeeps", airplanes and other war materials under a lend-lease agreement.

driven off to Germany as slaves. Only where their retreat had been too rapid to let them take vengeance, had the barbarous Nazis left even a wall or a chimney standing. Yes, the Red Army plan to drive Hitler out of the U.S.S.R. had succeeded, but at what a price! And what a job of reconstruction lay ahead!

One of the greatest problems of the Soviets was the rebuilding of cities, towns and villages recaptured from the Germans. These regions had been evacuated by the Russians, sometimes rather thoroughly. For example, when the Germans entered Mozhaïsk, a city of 18,000, they found only 5,000 of the inhabitants remaining. Soviet scorching of the earth was as nothing, however, to the German destruction as they retreated. The re-

porters who sent us stories from the recaptured territories told us that schools, homes, museums, factories, everything was destroyed. In some places nothing remained but the signposts indicating the street names.

Reconstruction was begun just as soon as the Soviets won back a town. Even while fighting was still going on in the outskirts, people appeared, as if from nowhere, and started building. First to be restored were the bakeries, the water supply, schools and the public health system. Thus in Stalingrad, within five months after the Russians had turned back the Nazis, they had established 10 hospitals, 11 health centers and 8 child care centers. The wrecked coal mines south of Moscow were producing at pre-war levels within nine months after the Russians had recaptured them.

There is every reason to believe that the main efforts of the Soviets, from now on, will be the rebuilding of the wrecked areas, rather than further expansion in the East. In recognizing the great size and scope of Soviet reconstruction, we should, however, remember that much of it is makeshift and temporary which will have to be replaced at a later date by more permanent structures.

A very serious loss to the Soviets during the war was the destruction of a great part of its railway system. Railroads had always been better developed in the West, the very region that the Germans overran. Nevertheless, the problem of quickly repairing these railroads

as they were recaptured was solved. An example is found in the fact that only three weeks after the city of Kharkov was freed, the Moscow-Kharkov service was again in operation. This was made possible by sending engineers behind the German lines to observe the damage, so that plans could be made and materials gathered together even before the railroad had been retaken.

There is one especially interesting railroad story. Early in the war the Soviets saw that they must locate new sources of nickel. And they did find nickel deposits—15 miles from the nearest railway. It would be six months or more before rails could be obtained. However, they did have one mile of rails, so they loaded the mining equipment onto a train of cars with three engines at its head. It started across the snowbound steppe, over the one mile of track that had been laid down. When the train had covered the mile, the tracks behind were torn up and again laid in front of the engines. Thus, by leap-frog stages, the equipment reached the mine site. Five months of precious time were saved.

Despite the fact that almost half of European Russia had been ravaged, the Soviet Union, strangely enough, found itself stronger than when it had entered the war. Its workers, of necessity, had learned to be more and more efficient and now are probably second only to American workers in production. Its transplanted factories had been enlarged and many new ones built.

Equally important, the Soviet Union had won millions of friends throughout the democratic world. Persons who had previously distrusted her form of government, now had to admit that it must give the Soviets new hope for the future or millions of people would not have given their lives to defend it.

President Roosevelt, Prime Minister Churchill and Premier Stalin had met at Teheran, in Iran, and agreed that their three Governments, and that of China, would work together to build a better post-war world.

The Russians will need help from us for many years to come. Already they have started rebuilding the farms, cities and industries which the Nazis destroyed, but it will be a long, slow process not to be completed for many years.

During World War II the United States has shipped to the Soviets billions of dollars worth of goods, such as material for carrying on the war against our common enemy—aircraft, machines for making war materials, guns, ammunition, tanks, trucks, ships, and finally food for the Red Army. When the war is over, there will be opportunity for even more trade. But it will be of a different kind. Instead of instruments of destruction, instruments for rebuilding will be needed. Much of the Soviets' industry was built from American models, with American machinery and with the help of American engineers. What could be more reasonable than that the U.S.S.R. should turn to this country for



Soviet fighter planes. During the war, Soviet factories were kept busy turning out war equipment. Their output was greatly increased by lend-lease material from the United States.

aid in restoring what was destroyed during the war?

The Soviets will have to have credits if they are to buy what they need. They will have to be allowed to pay for the goods over a period of some years. Also, they will have to sell here in our country the goods of which they have an abundance—furs, skins, bristles, tobacco, and the rare ores which go into the making of high grade steel. Russia has always been especially famous for its furs; the arctic hunters, of whom we have read, obtain some of the best furs in the world. During the war, the fur catch was largely needed for army and civilian use at home. Later, America may return to its place as one of Russia's biggest fur buyers.

How great our post-war trade will be depends largely on us. The Russians will want it to be very great

indeed. They will not be content merely to rebuild what they used to have. They still dream of a standard of living as high as that which we enjoy. To achieve that standard, they must continue to trade and cooperate with all other nations.

Make no mistake about it. The Soviet Union today is no longer the backward, ignorant, quarrelsome country that it used to be under the Tsars. It is one of the great nations of the globe, ranking close to the United States of America and the British Empire. After all those long centuries of struggle, it has at last succeeded in opening all of its windows and doors to the wide world.

And all of the friends of the Russians, in every part of the world, will agree with Mischa that that is "Ochen khorosho" or "Very good indeed!"

APPENDICES

A P P E N D I X I

SOVIET SOURCES OF WEALTH *

IN THE DAYS OF THE TSARS 57 per cent of the total output of Russian industry was agricultural, and industrial output was but 43 per cent. The Soviet regime has changed all that. By 1937, at the end of the second Five-Year Plan, the industrial output had risen to 77 per cent of the total output and has increased even more since then.

Although agriculture represented only 23 per cent of the total output in 1937, in amount it was still slightly larger than the amount raised in 1913. In the old days the farmers raised mostly cereal grains like wheat, oats and rye. Under the central planning of the Soviet

* Acknowledgments are made to the Honorable Joseph E. Davies, former U.S. Ambassador to the U.S.S.R., from whose *Mission to Moscow* many of the facts in this chapter were taken, and to the American Russian Institute for the use of material from the *U.S.S.R. in Reconstruction* (1944).

authorities, a great effort has been made to divert large areas of cereal acreage to the development of new crops, such as cotton and sugar beets, so that the U.S.S.R. might not be dependent on other nations for these products. However, this does not mean that the Soviet Union lacks cereal grains.

The Soviet Union in 1935 produced about one-third of all the wheat grown in the world or more than the entire crop of wheat produced that year in the United States, Canada and Argentina combined. During the same year, the U.S.S.R. produced nearly half of the entire world's crop of oats. It was three times that of the United States. As for rye, the Soviet Union that year produced four-fifths of the total world's rye crop.

In addition to cereal crops, the U.S.S.R. in 1935 was fourth in the production of cotton, second only to Argentina in the production of flaxseed, and was the leading nation in the world production of beet sugar, producing almost twice as much as the United States. In cattle, too, the U.S.S.R. excelled, for the average number of cattle in that country from 1926 to 1930 was 64,900,000, while during the same period there were 59,191,000 head of cattle in the United States.

The forested area of the Soviet Union is claimed to be the largest of any nation in the world and constitutes about 57 per cent of the total forest area of the world. The wealth in furs is indicated by the fact that one

tenth of Soviet purchases abroad before the war were paid for by the value of the furs exported.

Some Important Minerals

The U.S.S.R., through its official publications, claims that it has the richest deposits in the world of iron, manganese and oil, and the second largest deposits of coal. It is also known that the Soviet Union is second in the world's gold production.

It is interesting to note that in manganese, chromite, potash and mercury of which the United States has very little, the Soviet Union has plenty. On the other hand, the U.S.S.R. imports copper and other necessary items from the United States. The combined resources of the United States and the Soviet Union constitute complete self-sufficiency in foodstuffs and critical raw materials.

When the Germans occupied the Ukraine, source of half the coal and 60 per cent of the pig iron produced in the country, the Soviets could not move their mineral deposits. But they did move to new mines. They moved from the occupied zones eastward, rolling up their mining operations like a Persian rug that was spread out again a thousand miles east in the Urals and beyond. In most cases they moved from well-known to equally well-known deposits. In other cases, new mines were established in recently explored areas.

Other Minerals

Having moved east, the Soviets will no doubt continue to develop industry there, especially since new deposits are being discovered in their search for minerals. Under the lend-lease agreement, the United States shipped to the Soviets during the war several million tons of steel which were badly needed to make up for the loss of steel mills captured and destroyed by the Nazis. However, huge new deposits of iron ore, manganese, bauxite and coking coal have been discovered on the eastern slope of the northern Urals and a new steel center has been opened there, using men and equipment which were brought there from the Donbas.

Another new steel center has been opened in Uzbekistan, where the waterpower of the Syr-Darya is being harnessed by the Farkhad Dam. Iron deposits have been located at fifty places in Uzbekistan and good quality brown coal is being mined in the Angren Valley. Some of the iron ore lay beneath a river channel. To get at it, the course of the river was changed and now flows through a canal large enough to pass an ocean liner. This water is being used to irrigate a million acres of dry soil reclaimed from the desert.

In metals, other than iron ore, although deposits are widely scattered, progress has also been made. The copper reserves, estimated at nearly 20 million tons, are found chiefly in the Urals and Kazakhstan.

Manganese is the most important ore used in steel production. The U.S.S.R. has about 750 million tons or almost three-fourths of the entire world's reserves.

Outlook on Restoration

As the Red Army advanced westward, more and more of the highly developed industrial deposits were regained. Just as during the retreat the focus of public attention was centered on the problems of evacuation to the rear, so today public interest is being focused on the tasks of restoration of recaptured areas. Volunteers from as far east as Alma-Ata and Frunze, from as deep in western Siberia as Omsk and Novosibirsk as well as from near-by Saratov are coming in to Stalingrad to aid in restoration of this great Volga city. From Uzbekistan graduates of apprentice schools, youths who went east in the great migration as mere boys and girls, are now returning to help restore the Donbas to its former glory.

In the Donets basin they have 90 billion tons of coal to work on and the Dnieper river still has those resources of water power on which the original Dnieproges arose before the war. The cement clay deposits at Novorossisk can supply cement for the erection of new dams as well as the rebuilding of the war-wrecked Dnieper dam.

Wartime changes have, therefore, not lessened but added to the total fund of Soviet natural wealth.

A P P E N D I X I I

TRADE BETWEEN THE UNITED STATES AND THE U.S.S.R.*

IT HAS BECOME OBVIOUS to the world that America is the favorite foreign nation in the eyes of the Russians, who look to us for help in rebuilding their shattered industries, in restoring their mechanized agriculture, and in modernizing and expanding their transport, both railroad and highway. It must not be forgotten that the coal mines of the Donets Basin, now again in Russian hands, were practically rebuilt in the first Five-Year Plan after American models, and that American mining practices have become standard throughout the Union. Moreover, the famous Cauca-

* Acknowledgments are made to the American Russian Institute for the use of material from *The U.S.S.R. in Reconstruction* and to the Chamber of Commerce of the United States for the excerpts from the Moscow speech of Eric A. Johnston, its president.

sian oil-fields use American rigs and drills, and their refineries and gasoline plants are American; in the new "Second Bakú," the recently discovered fields in the Ural-Volga district, the same methods are being adopted, and American engineers erected duplicates of our cracking plants in the Urals.

One cannot forget, too, that Soviet automobile trucks are mostly Russian-made Ford Model AA, and their passenger cars Fords and Buicks. Their tractors are Caterpillar and International Harvester models; their best locomotives copy Baldwin and American Locomotive engines; their mine and factory locomotives are Mesta and Lima types; while the cars which were originally planned to be built in the huge Ural Carbuilding plant, before it was converted to war production, were self-dumping gondola and other American large-capacity steel cars, now standard in the Soviet Union.

And that does not complete the Americanization of Soviet industry. Bear in mind that the same conditions govern there as do here—a huge country, with a large population increasing faster than our own, with just as great a variety of needs, never yet fully satisfied and not likely to be for many years. In an attempt to meet the demands of the country, mass production methods had to be adopted, and America provided the model. Thus we have in the Soviet steel plants our latest continuous sheet rolling mill and enormous presses; in the canning plants and packing houses American machines

and methods; in the bakeries and laundries American mechanical devices. And in Moscow there are even American ice cream plants, beauty shops and perfume factories and automobile tire plants.

Parallel with the sale of our goods and processes have gone the services of our engineers, chemists, builders, and skilled workers. These, working on contracts with Soviet agencies, have designed and built plants, installed machinery, and turned out the first products of many a Soviet plant now converted to war purposes. With no political or territorial ambitions, Americans have easily made friends with the Russians, high and low, and have been welcomed as instructors in the new industries which the Soviet Union is rapidly adapting to its own conditions in its attempt to develop its natural resources and the native genius of its people.

Russians, even before the war as a whole is over, will probably come again to American manufacturers, perhaps particularly in Ohio, Illinois, Wisconsin, and Michigan, and ask for their technical advice, their products, and their methods, to assist in the Russian effort. The coal mines, coke plants, iron and steel plants, electrical stations, chemical plants, and the rest of the great variety of factories that made up the Donets Basin industrial district are already being rebuilt on a larger and more modern scale. The Donbas, as it is called, stretches from the Dnieper to the Don rivers, and turned out, before the war, 60 per cent of the an-



The Soviets have adopted the mass production methods which have been used so successfully in the United States. Here we see Russian-made *Buicks* on the assembly line at the Moscow Automobile Works.

nual Union output of coal, 61 per cent of iron ore, 59 per cent of pig iron, 50 per cent of steel, 77 per cent of aluminum, all the mercury produced in the Union, and a large proportion of the iron and steel products manufactured, from locomotives and rails, to agricultural machines and industrial equipment.

To name a few products and kinds of manufacture that seem to hold the most promise for American firms, as soon as the process of rebuilding gets under way, there seems to be a definite market in the U.S.S.R. for machine tools, except the simplest; for railroad, automobile and air transport equipment; for oil well and refinery equipment, especially the latest methods of producing high octane gasoline; for electrical equipment, a field in which America stands at the top; and for manufacturing plant equipment of many kinds, including foodstuffs processing, chemical, textile and other machinery. The Soviet Government will probably modify its long-standing policy of importing chiefly producers' goods, and will purchase quantities of American automobiles, refrigerators, vacuum cleaners, and many other products that will add to the comfort and ease of the population. In fact, one Washington newsman claims advance information on "thousands of electric plants for communal farms, refrigerators by the hundreds of thousands," besides locomotives and freight cars. He may be thinking of the 242,400 collective farms, each of which will undoubtedly need

refrigeration facilities for its output of meat, milk, eggs and butter, and of the 100,000 government and co-operative chain stores, mostly of the general type, for which store-sized mechanical iceboxes have long been included in the manufacturing plans.

It must be remembered, however, that the United States will not be the only supplier of Soviet needs; already other countries are studying the future Russian market. England, for example, who has traded with Russia for over 300 years, is training men to push her commercial interests there after the war; and English manufacturers are reported to be forming associations or domestic cartels, to cooperate in obtaining Soviet orders. Sweden, an even nearer neighbor, with a solid position in the Soviet Union for certain classes of goods, has established, with the support of Swedish exporters, a Russian Institute at the University of Stockholm, to study the U.S.S.R. and estimate its probable needs. And the Soviet Union is already considering plans whereby Germany will be forced to assist in the rebuilding of the towns and villages, the factories and mines, the electric stations and waterworks, that the Nazi armies have systematically destroyed in their westward retreat. These plans call for 30 billion man-days of work by factory, building and other German workers; in that requirement, one can readily imagine, are many machines and other commodities that will be useful in Soviet reconstruction. The prospect of a large

quantity of German labor and goods at no cost to them has a special attraction for Russians who have lost everything.

Import Possibilities

There is another side to the Russian trade picture, which must be considered if we are to see it complete. We must look at the commodities which the United States has for years imported from Russia, either through Germany and England before the Revolution, or directly since 1921. There is a list of more than 150 items, which the Amtorg Trading Corporation, the U.S.S.R.'s official government foreign trade agency, has successfully marketed in the United States, in an amount as high as 31 million dollars in one year, dollars which have paid the bills for American goods exported to the U.S.S.R. Among the leading items, which will always be in demand, are fur skins, goat skins, bristles, sausage casings, licorice root, cigarette tobacco, platinum and iridium, manganese and chrome ore, and many kinds of medicinal herbs and vegetable drugs. There is no doubt that the list of import products could be greatly enlarged by cooperation between Soviet producers and American users, particularly if the system is adopted that is being followed even now by several New York firms in the fur business. These have resident buyers stationed in Moscow, where they work in close

contact with the fur-collecting agencies of the Soviet Government, to the mutual advantage of both parties.

By following the old advice to buy where we sell, we can strengthen the Soviet economy, and enable the Soviet Union to become a customer whose purchases from us and sales to us will be in proportion to her needs and resources, and our own requirements and productive capacity.

While Eric A. Johnston, President of the Chamber of Commerce of the United States, was guest at a luncheon in Moscow on June 3, 1944, given in his honor by the Soviet Foreign Trade Commissar, he made a speech to important Soviet officials from which the following excerpts have been taken:

I am happy to learn, gentlemen, that you do not regard trade with capitalistic countries as being "counter-revolutionary." And, as for us, I know a Socialist in the United States who buys goods from me. He always pays me promptly and in full. I like him. And I never got infected by his Socialism.

I like your manganese. And there is one frightfully nice thing about your manganese. It does not know that it is Socialist. It would just as soon go into a furnace in Pittsburgh as in Stalingrad.

And you like our machine-tools. They do not know that they are capitalistic. They would just as soon chip pieces out of metal in Kharkov as in Detroit.

Besides manganese, you have lumber and chromite

and furs and bristles and platinum. Besides machine-tools, we have electrical, railroad and chemical plant equipment, precision instruments, mining and agricultural machinery.

I would like to see brisk exchanges of these commodities between us. I would like to see fewer exchanges of propaganda and counter-propaganda. I would like to see more exchanges of products and counter-products.

I am hoping therefore that whatever political questions may arise between our two Governments regarding the affairs of Europe or of any other continent can be adjusted in the spirit of friendship and on the basis of agreed moral principles. And I am hoping that thereupon our two Governments will negotiate and conclude a trade treaty that not only will permit trade between us but facilitate and further it throughout the world.

I have spoken of the differences between our two countries and the possible bridges between them. When I think of these differences and of those possible bridges, I always also think of what is to me a surprising geographical fact. Perhaps it could be surprising also to some of you. Do you realize, gentlemen, that our two countries are only three miles apart?

In the angry waters of the Northern Pacific, in the tumultuous strait named after the great Danish explorer Bering, who sailed in the service of your greatest Tsar, Peter the Great, there are two islands.

One of them is called Big Diomedes. It belongs to you. The other is called Little Diomedes. It belongs to us.

Between these two islands there is only a slender sea-stretch of just three miles. You and we are really very close neighbors, indeed.

But between these two islands there runs always a furious current. And between them runs also the man-made, imaginary, but very operative astronomical line called the *International Date Line*.

So these two islands are never in the same day of the week. If you start on a Tuesday in a native canoe from Little Diomedé in the United States and battle the wild current across to Big Diomedé in the Soviet Union, you find when you get there that you are in Wednesday. And if you turn around and paddle right back again to Little Diomedé, you discover that in a couple of hours you have landed yourself back in Tuesday.

Now I want to hear no Soviet propaganda saying that Wednesday is a day forward from Tuesday and so a much better day. And I want to hear no American propaganda saying that Tuesday is a better day by far; because in all human chronology everywhere, as the earth revolves on its axis, Tuesday will always arrive ahead of Wednesday.

No. Let us be as wise as the Eskimos who inhabit both of the Diomedes. They brave the current and happily paddle back and forth between their two islands, visiting and drinking tea and bartering their home-made goods.

Let us follow their example. Let us do two things.

One. Let us resign ourselves to the fact that certainly for a very long time to come you and we are going to

live in two different economic days.

Two. Let us visit and trade. Let there be more Soviets who know the Mississippi Valley. Let there be more Americans who know the valley of the Volga.

And so, therefore, gentlemen, I want to propose to you a toast:

"NEVER MIND THE CURRENT. NEVER MIND THE DATE LINE. HERE'S TO TODAY'S VICTORIES FOR WHICH WE FIGHT TOGETHER; HERE'S TO TOMORROW'S PEACE FOR WHICH WE MUST WORK TOGETHER."

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How to Pronounce Russian Names

NAMES OF PEOPLE

Lenin	(LEN-nin)
Stalin	(STAH-leen)
Alexei	(ah-lek-SAY)
Sergei	(ser-GAY)
Shostakovich	(shuh-stuh-KUV-vich)
Stakhanov	(stuh-KHAHN-uv)

NAMES OF PLACES AND THINGS

Novorossisk	(nuh-vuh-ruh-SEESK)
Novosibirsk	(nuh-vuh-see-BEERSK)
Birobidzhan	(beer-uh-bid-ZHAHN)
Dniepropetrovsk	(dinyeh-pruh-pet-TRAWVSK)
Komsomolsk	(kum-sum-MULSK)
Kuibyshev	(KWEE-bish-ev)
Magnitogorsk	(mug-nit-tuh-GORSK)
Tuapse	(twahp-SEH)
Ulyanovsk	(oo-LYAH-nuvsk)
Zaporozhe	(zuh-pur-RUSSIA)
Tovarishch	(tuh-VAH-rish)
Balalaika	(bah-lah-LIE-kuh)
Tiubeteika	(tyoo-beh-TAY-kuh)
Morozhenoe	(muh-RAW-zhen-nyeh)
Grazhdanin	(grah-zhdah-NEEN)
Petropavlovsk	(pet-truh-puv-VLAWSK)
Varenie	(vuh-RAIN-nee-uh)

RUSSIAN EXPRESSIONS

Khorosho	(cur-ruh-SHUR)
Nevazhno	(neh-VAHZH-nuh)
Ochen khorosho	(UH-chen cur-ruh-SHAW)
Ochen plokho	(UH-chen PLUCK-kuh)
Pozhalouista	(puh-ZHAH-lewis-tuh)

